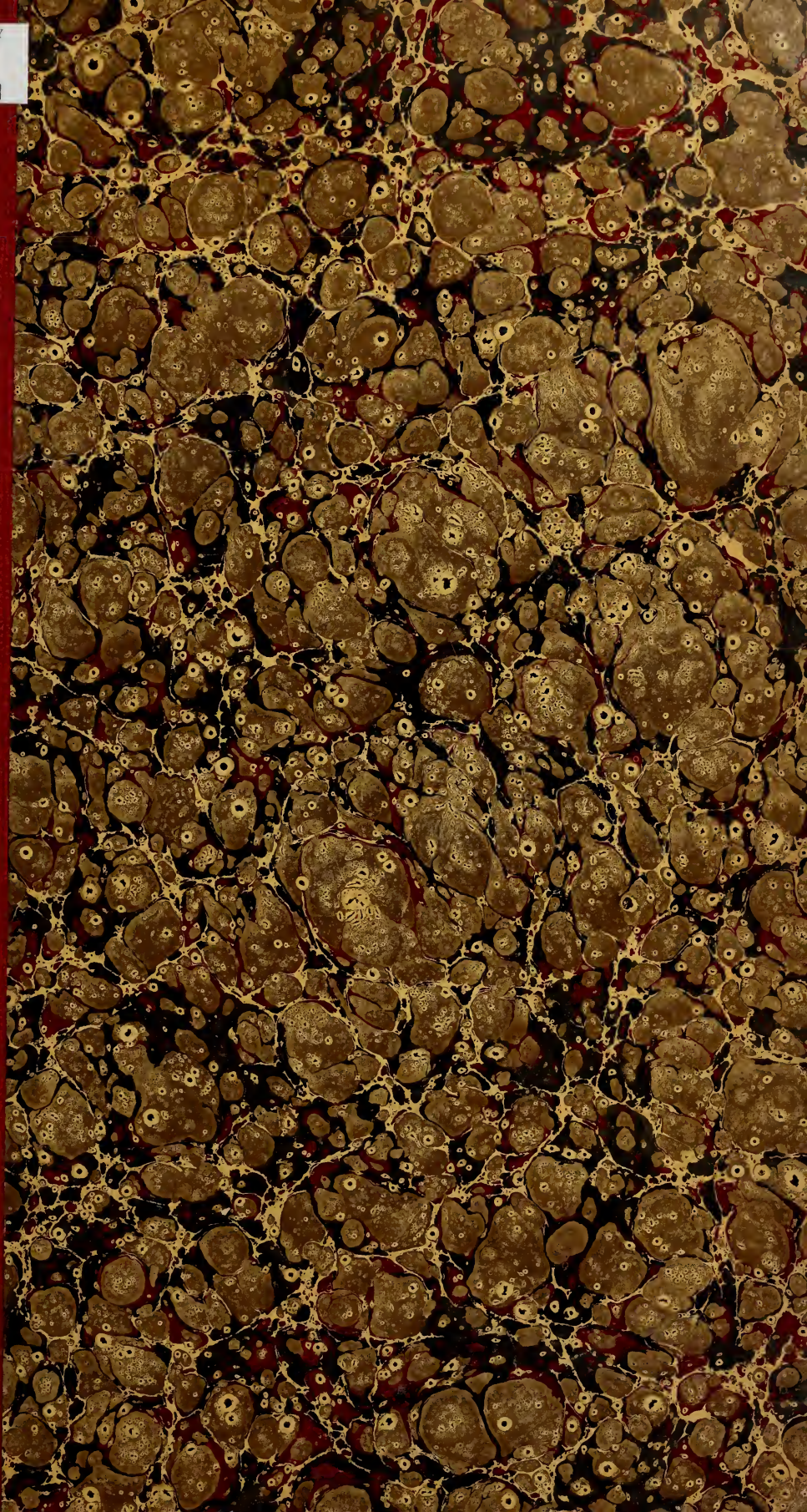


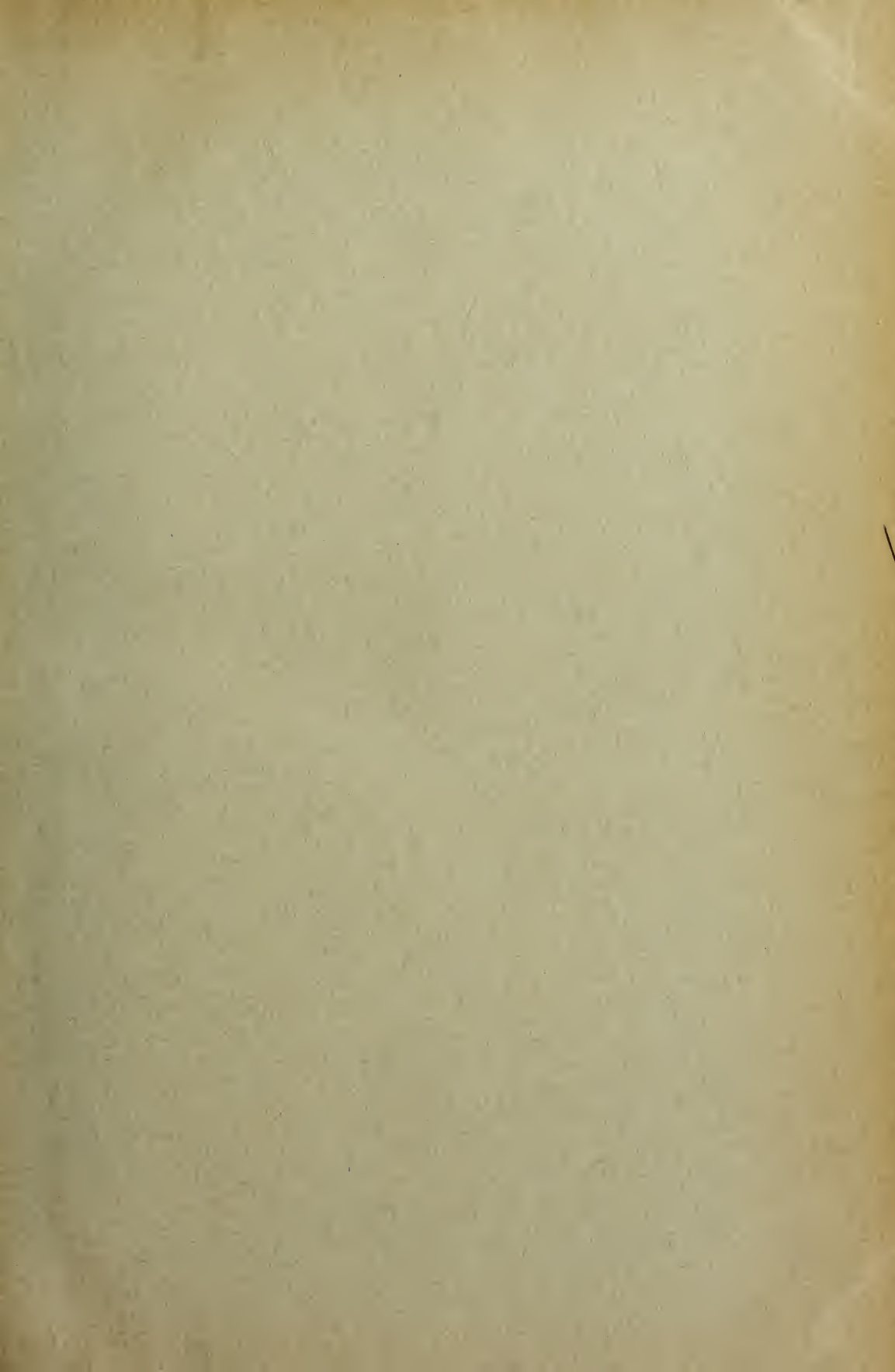
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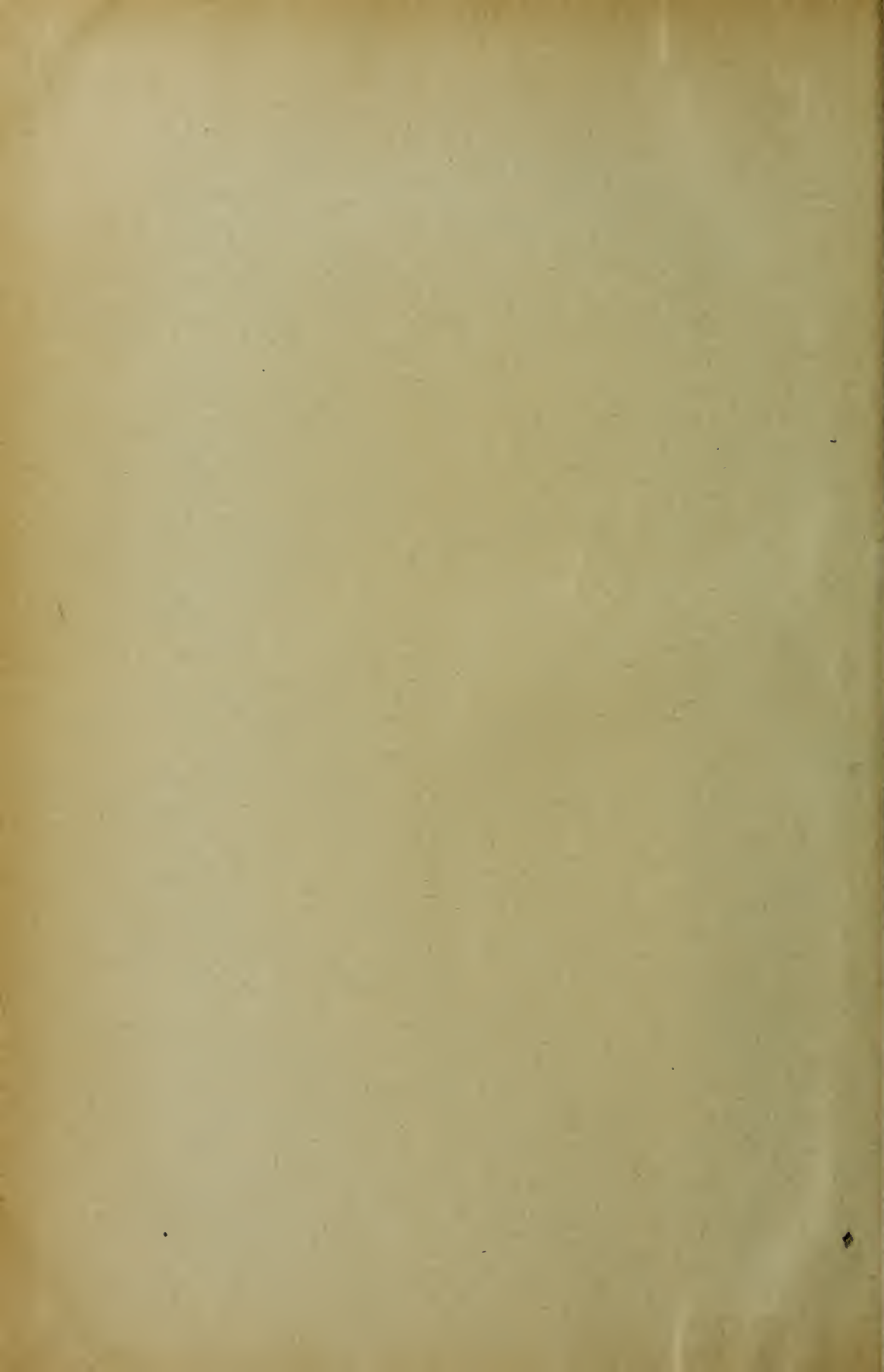


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THE JOURNAL



Maine Medical Association.

The Official Organ of the State and County Medical Societies.

VOL. V, No. 1 - 12

AUGUST, 1914.

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MAINE MEDICAL ASSOCIATION.

The Next Meeting will be held at Poland Springs.

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Vice Pres.:—First, A. L. Stanwood, Rumford.
Second, L. A. Dascombe, Skowhegan.

Secretary:—J. B. Thompson, Bangor.
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Notice from members regarding sale of practice, merchandise, etc., should be sent in early and specify the number of insertions.

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THE JOURNAL

OF THE

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VOL. V.

AUGUST, 1914.

No. I

The Sixty-second Annual Meeting

OF THE

MAINE MEDICAL ASSOCIATION

HELD IN THE
Council Chamber, City Building, Portland, Me.
Wednesday and Thursday, June 10th and 11th, 1914

AND
MEETING OF THE HOUSE OF DELEGATES
AT THE

Congress Square Hotel, June 9th, 1912, at 8 p.m.

GENERAL MEETING.

MORNING SESSION, JUNE 10, 1914.

The meeting was called to order by President Peters. Rev. W. H. Mousley offered prayer.

PRESIDENT PETERS: There is a new item on our program this year, and it seems to me that the one thing that has been lacking to complete the formality and dignity of our opening exercises will be filled in by this number. The Cumberland County Medical Society for years — the most of the years — has welcomed us with open arms, and it is most fitting that Dr. Dunn, the President of the Cumberland County Society, should extend cordial greetings to the members of the Maine Medical Association. I take pleasure in introducing Dr. Dunn to the gentlemen of the Association. (Applause)

glad to be with you and to hear the papers and discussions. I have recently made the trip from San Francisco, having left there on the 31st of May. It is certainly a great pleasure and delight to visit your eastern country as I have been in California for the past thirty-three years, during all that time being actively engaged in the practice of medicine. I have listened with much pleasure to the paper this morning, and notice that you are attending to such matters in the far East, or the State of Maine, in a similar manner to what we do in California. I have had some little experience as a general practitioner, and the cases of eye diseases in infants have always been a very formidable difficulty. I was reminded, when listening to the paper and some of the cases discussed, of a child who came into my practice many years ago. I was driving by one afternoon when a lady whom I knew very well beckoned to me to come in. When I got into the house, she told me that her son's little baby had a very bad condition of its eyes. The baby was about three weeks old. Of course I said I could not make any suggestions because it would be discourteous — unethical; but when I discovered that the case had practically been dismissed by the attending physician when the baby was about two weeks old, though the child was badly affected with ophthalmia neonatorum, I consented to merely view the child. I saw that it was in a very serious state, and advised that they send for the practitioner who had attended the confinement. Strange to say, they notified the practitioner, who came. It seems that the mother of the child had been putting flaxseed poultices on the eyes — a very serious indictment of the practitioners of San Francisco — but that is the fact. They were applying poultices, and, when the doctor came, he advised them to continue the poultices, and told them that the child's eyes would be all right. They asked me about it, and I told them that the sooner they got the child to a competent oculist, the better. Such cases occur, I suppose, in the State of Maine just the same as in California; and the general practitioner certainly needs to follow up his cases and see that the children's eyes are all right. This is a very serious matter. As regards the treatment, of course we use argyrol; although I must say that my personal experience favors nitrate of silver. I think the one per cent is quite sufficient. Crede, of course, used two per cent. I thank you, gentlemen.

THE PRESIDENT: Is Dr. Melville Long present? I should be glad to present him to the gentlemen of the Association.

DR. MELVILLE LONG: Mr. President and Gentlemen: — I have very much enjoyed the paper that has been discussed. Of course, being a recent graduate, I have read the literature on the subject. I recently read an article — I cannot just give the reference — stating

that recent investigations have disclosed certain micro-organisms in argyrol. For that reason, I should think that nitrate of silver would be much better than argyrol. So far as the further discussion goes, I have nothing to say.

THE PRESIDENT: The next paper on the program is "Pneumonia," by Dr. Cook of York Village. Dr. Cook not being present, we will pass on to the next, "Pellagra," by H. L. Bartlett of Norway.

Dr. Bartlett reads paper. Discussion opened by Dr. Gehring, followed by general discussion.

THE PRESIDENT: There are one or two announcements, which it seems proper to make at this time. The first one is that there is an exhibit of drugs and instruments in the hall on the floor below; also free grape juice and ice cream; and it is due to these firms that we all visit the hall.

The afternoon program will be changed a little. Dr. Cabot, who is to give the annual oration, desires to return to Boston on an early train. Therefore Dr. Tuttle and Dr. Cabot will change places on the program. This will bring Dr. Cabot's address as the first regular one in the afternoon.

I wish also to say that the time of meeting, which is not announced on the program, will be promptly at two o'clock.

The House of Delegates met last evening, an unusual custom, but a very successful one apparently, as we had the largest meeting of the House of Delegates within the memory of those present, some 85 per cent of the accredited delegates being present to transact business. The result was that we got rid of a very large amount of routine matters last evening. The next meeting of the House of Delegates will be this afternoon at half past one, in the Aldermen's Room on my left, just before the general afternoon session. At that time we shall ask that the various reports which were not ready last night be made. The new business to be transacted will be reserved for a session to be held this afternoon at the close of the regular afternoon session of the general assembly.

Among the various good things on the program this year, we are fortunate in having several papers from gentlemen outside of the State, and the next one is on "Surgical Diarrheas." I take great pleasure in presenting to the members of this Association, Dr. S. G. Gant of New York. (Applause) Dr. Gant reads paper.

The time limit having elapsed for the reading of papers (twenty minutes) Dr. Gant discontinued reading. A motion was made from the floor that his time be extended by unanimous consent, to which Dr. Gordon objected.

THE PRESIDENT: I think the Chair might say that in this case the gentleman had voluntarily shortened his paper by leaving out certain things after I told him how much time he had and nothing would be gained by starting in again. As neither Dr. Cousins nor Dr. Foster are present, the paper is open for general discussion. Paper discussed.

THE PRESIDENT: Dr. Cook is now here, and we will take great pleasure in hearing his paper on "Pneumonia."

Dr. Cook reads paper. Discussion opened by Dr. Addison Thayer.

THE PRESIDENT: There being no more papers and no more business to attend to this morning, I declare the meeting adjourned until two o'clock this afternoon.

Adjourned.

J. B. THOMPSON, *Secretary*.

WEDNESDAY AFTERNOON, JUNE 10, 1914.

Meeting called to order by the President at 2 P. M.

THE PRESIDENT: It would be a waste of time for me to try to introduce Dr. Cabot to this audience, any more than to present him, which is a great pleasure for me to do. (Applause)

Dr. Cabot reads paper.

THE PRESIDENT: Ladies and Gentlemen — It is certainly a matter of self-congratulation for every one of us that we have had the opportunity of listening to this remarkably interesting address; and, as Dr. Cabot is about to go out, I will take the liberty of thanking him, and, without waiting for a motion to be made, ask you to extend to him a rising vote of thanks, thus showing your appreciation of his paper this afternoon. (The audience rises)

THE PRESIDENT: Your presiding officer will now inflict upon you what is known as the President's address. I assure you that it is short, fortunately for you. This address was written within a few days after I heard that Dr. Cabot was coming to us, and after I had learned the subject of his paper. It seemed to me to be somewhat timely as presenting a little different aspect of hospital work.

(The First Vice President, Dr. Marston, takes the Chair, and the President reads his address.)

DR. GORDON: Mr. Vice President — I am glad that we have had a President of the Maine Medical Association who has the courage of his convictions. I am glad that he has been led in this line of thought. I, with several others of the profession, have labored for quite a good many years to get exactly this same thing which he recommends today, so far as hospitals are concerned. It is a shame for the State of Maine today that they are aiding with money so many hospitals. It is robbing the poor people of the State of Maine, for whom the hospitals were originally intended, and it is a disgrace, and has been. We have tried, several of us, for years to get hospitals to adopt a more charitable principle, to require that private patients taken into private rooms shall pay — if they do not pay the surgeon and physician — shall pay to the hospital a certain amount for their treatment, as well as for their board. The trustees of the various hospitals have ignored our claims, and have absolutely denied us any kind of a decent hearing. This paper has brought the thing before us today in a way never done before. I fully endorse every word that Dr. Peters has said on this matter, and I move that the thanks of this Association be presented to the President, Dr. Peters, for this very courageous and instructive address, and that it be referred to the Committee on President's Address.

Dr. Gordon's motion, being duly seconded, at the suggestion of the Vice President, was adopted by a rising vote.

Vice President Marston appointed as the Committee on President's Address, Dr. Stanley P. Warren of Portland, Dr. Williams of Auburn, and Dr. Cochrane of Saco.

(President Peters resumes the Chair.)

THE PRESIDENT: I am sure it is with satisfaction that we now return to a part of the program which is sufficiently well advertised so that we know what a man is going to talk about; and I will call upon Dr. Tuttle of Tewksbury, who is to give us an address on "Salvarsan."

Dr. Tuttle reads paper, followed by discussion.

THE PRESIDENT: The other paper of the afternoon is entitled "Sterilization of the Unfit," and I am sure that we will find it no less interesting than those that have gone before. It will be presented by Dr. Henry M. Swift of Portland.

Dr. Swift reads paper, followed by discussion. Adjourned.

J. B. THOMPSON, *Secretary*.

THIRD GENERAL MEETING.

THURSDAY FORENOON, JUNE 11, 1914.

Meeting called to order by the President.

THE PRESIDENT: The first paper is "Surgery of the Kidney. Case Reports with Observations." By Dr. John Sturgis of Auburn.

Dr. Sturgis reads paper, followed by general discussion.

THE PRESIDENT: We will now have the pleasure of listening to a paper on "Urotropin," by Dr. C. M. Robinson of Portland.

Dr. Robinson reads paper, followed by discussion.

THE PRESIDENT: We will now listen to a paper on "Heart Stimulation," by Dr. C. H. Hunt of Portland.

Dr. Hunt reads paper, followed by discussion.

THE PRESIDENT: Dr. Owen P. Smith has a case he would like to present to you at this time, as the mother and child are now present.

Dr. Smith: What I am presenting this morning, gentlemen, is a case of cleft palate and hare lip in twins. Both children had the cleft, but this was the worst case. This was a cleft palate with a very prominent intermaxillary protuberance. The other child had a cleft of the soft and part of the hard palate. The opportunity to show cases of this kind is very rare, because they are pretty well distributed over the State, and, ordinarily, these cases are located at so great a distance from these meetings that it is impossible to show them. This baby was operated on at four months of age, though the modern text books will advise an operation not under two and a half years. The closure of the palate, both hard and soft, is complete; and, if any of you wish to examine the result, I would be glad to have you step outside and do so, as probably the child would cry if any great effort were made to get into its mouth. As to the advantages of an early operation, I have operated on babies six days old, with complete cleft of the hard and soft palate, with perfect result. From 60 to 80 per cent of these infants with cleft palate die, if unoperated upon, before they are six months old from inanition. The advantages of early repair are not necessary to dwell upon. The thing I ask of you this morning is not to be too critical in regard to that lip. This child had a pronounced intermaxillary protuberance sticking out at the end of the nose as large as the top of your thumb. Now surgeons in the past have taken cutting forceps and cut that intermaxillary protuberance off. I say that because I have seen it done in Johns Hopkins under the best surgeons in the country. I have also seen cases where this has been done that have come to me for secondary repair. Another method is to cut into the septum and cut out a wedge-shaped piece, hoping that this will retract. Now, gentlemen, in this case no operation was done upon the intermaxillary protuberance at all. The lips from either side were brought forward and attached to that intermaxillary protuberance, which stuck way forward like the nose, and the gradual pressure of the lip on either side has brought it back into perfect position. The lip is no more prominent than in a healthy child. That notching that you see

is of no importance whatsoever, because in a year or two, after the face is properly moulded into position, it is the simplest kind of a thing to repair that little defect in the lip. The important feature is the closure of that hard and soft palate in infants. Now the mortality from these operations is practically nil. I have operated in the last fifteen years on considerably more than 200 cases, and out of that 200 cases I have not had a single death as the result of that operation. I operated upon one child, six months old, that weighed a pound less than the day it was born. It stood the operation of the cleft palate perfectly. I kept the patient under observation for three or four weeks, and did not close the lip at the time of the operation. In my early work I did not do this. Three or four weeks later, I operated upon the lip, which is considered a very safe operation, and the child died. That is the only case of death that I have had in over 200 cases. The lips now are all closed at the time of the first operation. I have worked out a method of closing these hare lips that prevents any destruction of tissue whatsoever. The procedure is to simply make an incision along the junction of the skin and mucous membrane to the place where the lip becomes thickened. Then by splitting that open you avoid the coronary artery and get no bleeding whatsoever; and with a double line of fine sutures I suture the skin together on the outside and the mucous membrane on the inside. I do not depend on these fine sutures for any helping purpose. They are simply to keep the skin and mucous membrane together. I put in a heavy traction Lane suture that carries all the weight of the muscle. In the earlier cases, I suppose I got from 60 to 80 per cent of cures, which is better than would happen if they were left to die—60 or 80 per cent in the natural course of events. In the last two or three years, by finding out the cause of my failures, I am reasonably sure now of success in a very great majority of cases. The cause of the failures that I have had has been due largely to some ulceration about the septum, or in the mouth, which infected the wound. Before operating now on these cases, I see that these ulcerations are cured or relieved. Another cause of my failures has been trying to do too much in the very wide clefts. In the very wide clefts it is better to have two or three sittings, repairing perhaps the front part of the hard palate at the first sitting, the back part of the soft palate at the second sitting, and, after those operations have drawn the face together, say in a few months, repair the intermediate section. If that method be followed out, I think you will get as many successes as in any general surgical procedure. You will find on examination of this child's palate that it is low and flat, as it should be, and the flexibility of the soft palate is as perfect, almost, as in a normal child.

The only other operation that I know of for early infancy is one suggested by Prof. Brophy of Chicago, in which he puts in strong, heavy, silver wire sutures through the maxillary bones, and by great force jams these structures together. In the cases of Prof. Brophy's that I have seen, the results are exactly what you would expect: The sutures coming so low down, as they are bound to do as the jaws are pressed together, the palate processes are interfered with, and, instead of getting a normal, flat palate, you get a very high-arched palate, which to the rhinologist is very objectionable; because all the tissue that is forced from the mouth up into the nose takes just that much space out of the normal breathing space of the nose. I thank you.

THE PRESIDENT: The next paper on the program is "The Treatment of Diseases of Vegetable Parasitic Origin by Deep Muscular In-

jections of Mercury," by Dr. B. L. Wright, Portsmouth, New Hampshire, Surgeon, U. S. N.

Dr. Wright reads paper, followed by discussion.

Meeting adjourned until 2 P. M.

J. B. THOMPSON, *Secretary*.

GENERAL MEETING.

THURSDAY AFTERNOON, JUNE 11TH.

Meeting called to order by the President.

THE PRESIDENT: As the second paper of the afternoon will be read by title only, we have ample time to hear the first paper and transact our business, even if we are fifteen minutes late. The first paper on the program, and the only one this afternoon, is by Dr. Richard F. Chase of Boston, on "Visceral Ptosis." I take pleasure in presenting Dr. Chase to the Association.

Dr. Chase reads paper, followed by discussion.

THE PRESIDENT: Dr. Pillsbury of Saco is not here. He has sent his paper to the Secretary; and is it your pleasure that it be referred to the Committee on Publication, with leave to print, or how will you deal with it?

Voted that the paper on "The Intrinsic Value of Tobacco" be referred to the Committee on Publication.

THE PRESIDENT: With your permission, I will read a very short report from the Committee on Necrology which has been handed to me.

To the President and Members of the Maine Medical Association —

Your Necrologist has a very small list of deaths to report for the past year 1913-14, the smallest in many years. Inasmuch as properly prepared obituary notices of all the deceased members have duly appeared in the pages of the Association Journal, I have only to add the names of our departed members: Joshua William Beede of Auburn; William Cowie of Guilford; Arthur Adelbert Downs of Fairfield; Edwin Motley Fuller of Bath; Walter Johnson Pennell of Auburn; William Edgar Rice of Bath.

Respectfully submitted,

JAMES A. SPALDING, *Necrologist*.

THE PRESIDENT: I have two telegrams I will read.

Boston, Mass., June 11, 1914.

Dr. Jos. B. Drummond,

Care Maine Medical Ass'n, City Hall, Portland, Maine.

Harrison Anti-Narcotic bill amended, requiring physician keep record subject to inspection all narcotics dispensed, also purchased. Final action by United States Senate, Monday. Your society should forward immediate resolutions of protest to your United States Senator.

FRANK L. H. NASON, Mgr. Tailby Nason Company.

Boston, Mass., June 11, 1914.

I. G. Shaw,

Care Maine Medical Ass'n, City Hall, Portland, Maine.

See Secretary and President of society, also any dispensing physician attending meeting; urge society to pass resolutions against Harrison Anti-Narcotic bill as amended, which provides physician keep record all narcotics dispensed and purchased. United States Senate will take action Monday. Resolutions should be forwarded immediately to United States Senator from Maine.

FRANK L. H. NASON.

THE PRESIDENT: This telegram is signed, not by an individual alone, but by a drug company. I should not have laid this matter before you had the House of Delegates not already finished its business for the year.

On motion of Dr. Gordon, it was voted that the telegrams lie on the table.

DR. CAMPBELL: Mr. President:—I understand that a former President of this Association, Dr. Sawyer, is unable to be present today by reason of illness. It has been suggested that it would be a courteous thing to send him a message of sympathy, with a sincere wish for his speedy recovery. It was so voted.

DR. TWITCHELL: Mr. President—As all of you know, one of our members has been ill now for about two years—Dr. A. S. Gilson. He was formerly, I think, treasurer of this Association, and always active and faithful in his connection with the Association. I move you, sir, that our Secretary be instructed to send him our best wishes. It was so voted.

THE PRESIDENT: If there is no further business to come up at this time, I will ask the Secretary of the Association to give us the report of the transactions of the House of Delegates.

THE SECRETARY: I will be brief in my remarks, knowing that you are anxious to proceed to the election of a President.

This year, under a change in the By-Laws, the first meeting of the House of Delegates was held at eight o'clock in the evening of the day preceding the opening of the sessions of the general Association.

Nearly all the delegates from the various counties were present, only one county not being represented. There was a long discussion as to the best means of dealing with the osteopathic situation and it was finally decided to leave the matter in the hands of the Committee on Public Policy and Legislation, with power to act as they thought best.

It was voted to continue the appropriations to the various committees, and a new committee was formed to be called the Committee on Health and Public Instruction.

A resolution was adopted favoring a rotation in the office of delegates from the component County Societies to the House of Delegates.

It was voted that the County Societies be requested to make their fiscal year correspond to the calendar year, and it was also voted that the county Secretaries meet some time in December of each year, with the State Secretary, hotel expenses to be paid by the State Association and that the various counties be asked to bear the railroad fares of their secretary.

The list of officers elected for the ensuing year was read.

List appears in the proceedings of House of Delegates.

It was voted that the next meeting of the Association be at Poland Springs.

On motion voted that the report of the Secretary be accepted and placed on file.

THE PRESIDENT: The report of the Council is in order.

The Secretary: The Council has audited the accounts of the Treasurer, and found them correct. It also has approved all the appropriations made by the House of Delegates.

Voted that the report be approved and placed on file.

THE PRESIDENT: The next business on the program, gentlemen, is the election of a President for the ensuing year. I await your action in the matter.

DR. GORDON: Mr. President—I suppose the usual method will be adopted of nomination from the floor?

THE PRESIDENT: Yes, sir.

DR. GORDON: There is one county in the State of Maine that has had one President within my recollection, and only one. That was a good many years ago, too. I became a member of the State Society in 1858. That is sometime ago. Several of you were not born at that time; but there has been only one President from the county of Oxford. I have a little pride in the county of Oxford, being born there myself; and I would nominate as President for the ensuing year, Dr. H. L. Bartlett of Norway. (Applause)

DR. STANWOOD: Mr. President—Being a member of the Oxford County Association, and a close friend of the man nominated, it is with great pleasure, knowing him as I do, having been associated with him as I have in our county society, knowing him to be faithful to all offices which he has held, diligent and worthy of the position to

which he is nominated, that I second the nomination of Dr. Bartlett of Norway.

DR. THAYER: Mr. President — I cannot claim the same right that Dr. Gordon has to represent Oxford County, even for a part of the year; but I think a good many of us outside of Oxford County are extremely glad of the opportunity of honoring Dr. Bartlett. He has been for a great many years an earnest and useful worker for this Association. I very heartily second the nomination of Dr. Bartlett.

DR. CUMMINGS: Mr. President — As a member of Androscoggin County, it gives me pleasure to second the nomination of Dr. Bartlett. Dr. Bartlett has served as Councilor from our district, and has always attended the meetings and shown great interest in the Association. I think he is a man who will fill the position creditably and do his duty.

DR. YORK: Mr. President — I live next to Oxford County, in Franklin. I presume Franklin County has had a President at some time, but I do not know. We have good men in all the counties, and, although Dr. Bartlett is not personally known to me, I have no doubt that he is an excellent man for the position, and I second his nomination from Franklin County.

DR. HILL: Mr. President — I come from a very modest county — Kennebec. We don't want any offices down there now —

DR. GORDON: You have got most all of them. (Laughter)

DR. HILL: But I very gladly second the nomination of Dr. Bartlett for President of this Association.

DR. SMITH: Mr. President — As a representative of Somerset County, I second the nomination of Dr. Bartlett.

DR. WILLIAMS: In behalf of Sagadahoc, I also second the nomination.

DR. STURGIS: Mr. President — I rise to say that I have known Dr. Bartlett for quite a long time, and that I most heartily second his nomination. By the appearance of things, there is nothing more to be said, and I move you that the Secretary cast the ballot of this Association for Dr. Bartlett for President.

THE PRESIDENT: If there are no further nominations to be made, I will put this motion: It is moved and seconded that the Secretary cast one ballot to elect Dr. Bartlett President of this Association. Those in favor of the motion will express it by rising. (Members present stand)

THE PRESIDENT: I declare Dr. H. L. Bartlett of Norway elected President of the Association for the ensuing year; and we should be delighted to hear from Dr. Bartlett. (Applause)

DR. BARTLETT: Mr. President and Members of the Association—This surprising honor which you have passed up to me, I sincerely thank you for. I accept it, not as a compliment to myself, but as a compliment to Oxford County. I will endeavor to serve you to the best of my ability for the coming year, and hope you will have charity toward my shortcomings. Again I thank you. (Applause)

THE PRESIDENT: Gentlemen of the Association—So far as I know this closes our business for this year. I wish to thank the members of the House of Delegates for their co-operation in the speedy transaction of the business, and I wish to thank the members of the Association for their kind assistance in carrying out what seems to me to have been an unusually good program.

DR. GORDON: Mr. Vice President—I think the thanks of this Association are due to one of the best presiding officers that this Association has ever had. (Applause) He has been prompt in the dispatch of business; he has been courteous in his manner toward us; he has shown no favors nor partisanship; and I think we should all manifest our thanks and our good will toward President Peters by a unanimous rising vote. (Members rise)

THE PRESIDENT: Gentlemen of the Association—Praise from such a source is certainly most satisfactory. I declare this meeting adjourned.

Adjourned.

J. B. THOMPSON, *Secretary*.

FIRST MEETING OF THE HOUSE OF DELEGATES.

TUESDAY EVENING, JUNE 9, 1914.

The meeting was called to order by the President, Dr. W. C. Peters, at the appointed time.

THE PRESIDENT: Those of us who have attended the meetings of the House of Delegates for the last three or four years have observed that it is very difficult to get business done and at the same time attend the regular meetings of the Association; so last year it was thought advisable that we have a meeting of the House of Delegates the evening before the sixty-second annual meeting of the Maine Medical Association instead of on the morning of the first day. That

is why you were requested to be here tonight. It is very gratifying to see so many here, especially when it means the loss of an extra half day, and in some cases a whole day, to arrive the night before the annual meeting.

The first thing is to hear the reports of the Councilors, and I will ask if the Councilor from the First District is present, Dr. Cochran of Saco. (No response)

I will call for the report of the Councilor from the Second District, Dr. E. S. Cummings of Lewiston. (No response)

Third District, Dr. Coombs. (No response)

Fourth District, Dr. Campbell of Augusta. (No response)

Fifth District, Dr. Webber of Calais.

DR. WEBBER: Mr. President—I am very sorry to say that I have no report to make to you. The report was to have been made out by our Secretary and handed to me, but I failed to get it. I think there will be a delegate here tomorrow who will have it.

THE PRESIDENT: I see that Dr. Campbell of Augusta has just come in, and we will listen to his report.

Dr. Campbell: Mr. President and House of Delegates—The County of Waldo has held one meeting during the year, on the 12th of March, with an attendance of six. They have a membership of thirteen, and they have transferred one to the Cumberland County Society.

The Somerset County Association has held one meeting, on Thursday last, with an attendance of seven. They have a membership of fifteen.

These meetings in Waldo and Somerset have not been what we had hoped to see in point of attendance, and the papers which should have been read have not always been written. Both societies promise better things in the future. I think they need some inspiration, perhaps more than I have been able to give them.

The Kennebec County Association has had the best year that it has known since I have been a member. It has held quarterly meetings, with an average attendance of thirty out of a membership of sixty, and has had, at different times, men from away who have given us very interesting, as well as instructive, papers. I feel that the Kennebec Association is on a par with the best in the State.

On motion, voted that the report of the Councilor from the Fourth District be accepted and made a part of the record.

THE PRESIDENT: Is the Councilor from the Sixth District here, Dr. Dickison of Houlton?

DR. DICKISON: Mr. President—I have not the report to-night. I will have it later.

THE PRESIDENT: We will now take up the committee reports; and the first committee is the Committee on Scientific Work, Dr. Gilbert of Portland, chairman. May we hear from Dr. Gilbert?

Dr. Gilbert: Mr. President—I think the printed pamphlet will give you as complete an idea of the work done by your committee as anything I can say

to you. There have been some omissions in regard to notifying members as to discussing papers. For instance, it is a part of the work of the committee, not only to solicit papers, but to get the abstracts, and secure a number of men to open the discussions—one or two as a rule for each paper. Where a member has sent in a paper, and failed to specify some member to open the discussion, we have placed a man on and notified him in some cases, and I find in other cases we have not. It will be easy for you to understand the confusion we got into in trying to straighten these matters out; and if any of you received such a notice, I hope you took it in the spirit in which it was sent. It is merely to carry out the spirit of the work. One man approached me and wanted to know why he was put on to discuss a certain paper. He said he did not know anything about it and could not see why he was selected. I told him that if he did not know more about it when the discussion was finished, it would be his own fault; that I thought it a good opportunity to find out about the subject.

On motion voted that the report of the Committee on Scientific Work be accepted and placed on file.

THE PRESIDENT: I see Dr. Coombs of the Third District has come in. Have you your report ready, Doctor?

DR. COOMBS: My report is not ready, Mr. President. A matter has arisen today that will make it necessary for me to make the report a little later.

THE PRESIDENT: I will call for the Report of the Committee on Venereal Diseases and their Prevention.

Mr. President and Members of the Association—

One year ago, the Association voted fifty dollars towards carrying on the work of this committee. During the year two hundred dollars has been subscribed, of which one hundred and seventy dollars has already been paid in.

Following is a summary of the receipts and expenditures to date:

RECEIPTS.

Subscriptions, 1911 - 12,	\$480.00
Maine Medical Association, 1912,	50.00
Maine Medical Association, 1913,	50.00
Interest accrued,	28.75
Subscriptions, 1914:	
Mr. Robert H. Gardiner, Gardiner, Maine,	100.00
President William DeWitt Hyde, Bowdoin College,	10.00
Dr. F. N. Whittier, Brunswick, Maine,	25.00
Dr. D. A. Sargent, Harvard University,	10.00
L. A. Burleigh, Esq., Augusta, Maine,	5.00
Dr. E. E. Holt, Portland, Maine,	10.00
Mr. Hiram W. Ricker, South Poland, Maine,	10.00
Total Receipts,	<hr/> \$778.75

EXPENDITURES.

Prior to 1913 - 14.

Bills approved by the chairman and paid by the Treasurer,	\$ 50.00
Literature,	2.50
Telegram,	.25
2,000 copies of "The Boy's Venereal Peril,"	40.00
Postage,	40.76
Clerical work,	84.69
Express,	4.90
Printing and stationery,	27.65

1913 - 14.

1,000 copies of "The Boy's Venereal Peril,"	20.00
Postage,	72.65
Clerical Work,	171.25
Express,	.95
Printing and stationery,	40.65

Total expenditures,	<hr/>	<hr/> \$556.25
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Balance on hand in Brunswick Savings Institution,	\$222.50
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During the past year the committee has continued its work of disseminating information upon sex hygiene and the dangers of the venereal diseases. The plan has been followed of obtaining from school superintendents in various parts of the State, the addresses of parents with children of grammar school age. About one thousand individual letters with the pamphlets and reports have been sent to parents during the past year. About fourteen hundred letters, with pamphlets and reports have been sent to parents during the past two years.

While other methods of teaching sex hygiene have received severe criticisms from clergymen, teachers and others, the method adopted by the committee of teaching the importance of prevention through parents has not been included in the criticism. It is gratifying to the committee that, while inviting objection in each letter to parents, no word of criticism has been received from this source.

The pamphlet used is "The Boy's Venereal Peril," published by the American Medical Association. An effort has been made by the committee to find a pamphlet for girls but up to the present time, none has been found that is entirely satisfactory.

The committee has made an effort to acquaint the clergymen of the State with the work undertaken. Two hundred and sixty personal letters have been sent to the clergymen of the State and many letters of appreciation have been received in reply.

Many letters, reports and pamphlets have been sent to educators, Board of Health officials, societies in other States and others who seemed likely to be interested in the work. A number of requests for information in regard to the work in Maine and many letters of commendation have been received.

The committee wishes to continue next year the sending of pamphlets and letters to parents having boys of grammar school age; also to develop public opinion throughout the State for including syphilis, gonorrhœa, and chancroid in the list of infective diseases made reportable by law to the State Board of Health, provided these diseases be reported by number rather than by name.

The committee asks the Association for an appropriation of fifty dollars to assist in carrying on the work during the next year. Such an appropriation would not only be a help in itself, but it would also be an endorsement of the work of the committee by the Association and as such aid much in raising funds to make the work effective.

Among the letters of endorsement received during the past year are the following:

The Society of Sanitary and Moral Prophylaxis, New York City, Miss Olive Crosby, Office Secretary:

"On my return from an absence due to illness, I found your letter, with the very interesting report of the work done in Maine.

"May I say that I think it is one of the best reports that has come to my attention in a very long time, as it is practical and conservative. We shall be very glad to co-operate with you in any way that we can, and assure you of our interest in the work which you are doing."

Hon. Payson Smith, State Superintendent of Public Schools, Augusta, Maine:

"I congratulate you and your committee upon the splendid work that has been accomplished during the past year. I should be glad to serve you in any way possible."

Rev. Robert Codman, Bishop of Maine, Portland, Maine:

"I have read with the greatest interest the report of your Committee on Venereal Diseases, and I want you to understand that I am thoroughly satisfied with the Committee's work, and earnestly hope that the work may be continued."

Hon. Bert M. Fernald, Ex-Governor of Maine, West Poland, Maine:

"I acknowledge receipt of your letter of the 4th and have read the report of your committee with great interest. I can make no suggestion that would be of value, except that more interest should be taken by the business men of the State, in the work you have undertaken.

"I am glad to hear from you at all times, and appreciate the courtesy of the report forwarded."

President George C. Chase, Bates College, Lewiston, Maine:

"I have your letter of August 5th enclosing the report of your committee to the Maine Medical Association. I thank you for the letter and the report and am deeply interested in the work undertaken by your committee and promoted by the Maine Medical Association. I should be glad in any way permitted me to contribute to the success of the important work in which you are engaged."

Rev. Joshua M. Frost, District Superintendent, Auburn, Maine:

"Thanking you for the pamphlets recently received concerning venereal diseases, I assure you that you may depend on me to carry out your request in relation to the more than fifty preachers on my district and will carefully consider the best plan for such co-operation."

Rev. W. Merton Snow, Pastor Advent Christian Church, Mechanic Falls, Me.:

"The reports of your committee, together with the pamphlet that you are sending out to parents that the child may be safeguarded against venereal diseases, came to hand and I have been much interested in reading of your work. I am heartily in favor of the steps that you are taking and shall watch your efforts through coming days with interest.

"I note that you willingly supply copies of the pamphlet to those who desire to help place them. I should be pleased to receive a half dozen copies if you have them to spare. It is one of the problems of a pastor to know just how to approach the young along this line, and the pamphlet will be of great assistance I am sure."

"It is my hope that the State Board of Health will add syphilis, gonorrhœa and chancroid to the list of diseases which physicians are required to report to the State Board. May it be done speedily!"

Rev. A. L. Leech, Pine Street Methodist Church, Portland, Maine:

"Received reports and your pamphlet. Have read it from cover to cover. It fills a great need. My experiences in two insane hospitals and in operating rooms have shown me the need of just such advice and knowledge for boys. Will you not have a similar one written for young girls as their need is as great? I shall be only too glad to receive twenty-five copies more which I certainly can use. Already I have given away the copy I received yesterday. Enclosed find names."

Rev. D. A. Hudson, Westbrook Congregational Church, Westbrook, Maine:

"Your letter and pamphlets have been received and read with much interest. I am glad you and others are doing such needed work.

"Certainly all ministers ought to be most willing to co-operate in so vital a work as you represent. Let me hear from you if you think I can aid you in any way."

The committee feels that the work is being carried on very economically and effectively and asks that the committee be continued and an appropriation of fifty dollars granted.

(Signed) F. N. WHITTIER, M. D., Brunswick.
A. L. STANWOOD, M. D., Rumford.
E. E. HOLT, M. D., Portland.
F. H. JACKSON, M. D., Houlton.
A. S. THAYER, M. D., Portland.

On motion, voted that the foregoing report be accepted and printed.

THE PRESIDENT: We will now listen to the report of the Cancer Committee.

Mr. President and Members of the House of Delegates—

During the past year, your Committee on Cancer has worked along lines advocated by the American Medical Association, the American Gynecological Society and the American Society for the Control of Cancer. Realizing the great need of public instruction from the profession on the subject of cancer these several societies have recommended that we go before the public explaining what we can regarding the need of early diagnosis and early operation for cancer. Your committee felt that such a plan was worthy of trial and beg to report the following work done for the past year.

Early in the fall your committee wrote to a man in each of the various cities and large towns of the State in which letter we tried to explain the work we proposed to do and asking of the local man to arrange for the meeting to be held in his town. Each local man was to be the representative in his locality for it is obvious that the work undertaken was far too large for your committee to do the personal work. The responses to this letter varied from no reply at all to the opposite that after talking matters over with the local

woman's club it was felt that the subject of cancer was not one fit for a public lecture. One very intellectual and advanced lady made the very refreshing statement that it seemed to her that we could say nothing as she felt that every one knew that there was nothing to cancer but surgery and early surgery at that. It was at once recognized that our seed would fall upon stony ground to labor in such a field and our local representative felt the same.

We have held four very successful public meetings in the State this year, at Portland, Bar Harbor, Calais and Lewiston. These meetings can be regarded as successful, not only from the size and nature of the audience, but from the marked interest taken in the talks. Your committee has been informed that not only were the audiences pleased with the manner in which our remarks were presented, it being feared at first that the presentation of the subject would be more or less gruesome, but that a repetition of the meeting would be welcome.

We feel that the work has only just commenced and that another year it should be carried on, we having had the assurance from some of the Chairmen of the National Societies that we are looked upon as having done excellent work in this untried field, and that next winter there would be at the disposal of each State Committee men of State and national prominence on the speakers' list so that more meetings could be held. We might say in this regard that we feel that some of the men who admit the need of this work seem very much inclined that some one else do the talking and while we find many who are very willing to do their share, it seems more or less a duty that we all must engage in when requested. It is rather selfish to ask a few men to do this work when a much easier solution could be obtained by each one doing his share when asked.

It seems also to us that another year the work to be done should be part of the labor of the County Society. Surely the holding of one public meeting during the winter should be an easy task and not only will it make the work of your State Committee easier but it seems to us that the meeting will savor of being the expression of the representative professional body of the locality. Our meeting in Portland had the great pleasure of hearing Dr. Edward Reynolds of Boston, Dr. John F. Thompson and Dr. Seth C. Gordon of Portland. The meeting in Lewiston was in charge of Dr. Webber, who gave a very interesting paper and the meetings in Calais and Bar Harbor heard from Dr. D. A. Robinson of Bangor and Dr. F. H. Jackson, your committee. It is our great pleasure to assure the gentlemen who did so much to make our work of some success of our hearty appreciation of their efforts and it is earnestly requested that in the future work that the co-operation of the men who are written to will be afforded your committee.

Respectfully submitted

F. H. JACKSON,
S. E. WEBBER,
G. B. SWASEY,

Committee on Cancer.

On motion voted that the foregoing report be accepted and printed.

THE PRESIDENT: I will call for the report of the Committee Visitors to Insane Hospitals, Dr. O'Connor of Biddeford and Dr. Sturgis of Auburn.

Mr. President and Members of the House of Delegates —

Your Committee wishes to report that they visited the State Hospitals at Bangor and Augusta, May 20 and May 21, and were hospitably received at both, and courteously piloted through each hospital with the result that our visit was very much enjoyed.

At Bangor, our first place to visit, there were 620 patients, an increase of 60 patients since your committee visited there a year previous, but they are being well taken care of, in a modern way, and the general appearance of the place was one of cleanliness and neatness.

The buildings at Bangor are well arranged, and compact in appearance, and so arranged that the sanitary operation of an institution of this character is well carried out. The installation of a storehouse, a cold storage plant, and an ice-making machine have materially added to the workings of this hospital. The added fire protection has also furnished the needed protection required in case of fire.

Your Committee found the capacity of this hospital taxed to the limit, and extra rooms must be provided in some way to accommodate the patients that will constantly come to the hospital. A congregate dining room seems a good solution of the cramped condition, as, by the advent of one, the room devoted to each ward for dining purposes could be utilized for more patients.

Another improvement that is suggested is the building of balconies or verandas on the wards so patients could take a whiff of air occasionally. There are many patients, we were informed, who do not get out in the air, and this would correct this hardship. We found that there were not as many patients on parole here as at Augusta.

An interesting annex to the Bangor hospital is the tuberculosis wing, and, from a medical standpoint, it seems to us a very necessary addition and of great benefit to the tuberculosis insane of both hospitals.

It would be a great benefit to have a building of such construction connected with both institutions which would act as an infirmary for the emaciated and bed cases, for they would receive a special diet, and have the benefit of rest, and isolation from the more robust cases.

At Augusta, there were 920 inmates, an increase of 20 patients since your committee visited there one year ago, and at that time there had been quite a few patients discharged previous to our visit.

There is one of the wings in process of renovation there that will be of great help to them, and will greatly assist in providing proper facilities for the care of violent, disturbed and suicidal cases.

There remain two more wings that require the same alteration, and we hope that it will soon meet with treatment, for there is much need for it, as the old wings, as you have repeatedly been told, are sadly in need of being modernized.

A trip through these will at once convince you, as they are dark, poorly ventilated, and the plumbing is antiquated, and much unnecessary space is being wasted. The patients appear to be humanely, and scientifically treated at both hospitals.

It was our good fortune to attend a staff clinic at Augusta, and at this clinic the autopsy report of a twenty-year inmate was discussed, and microscopical slides showing the different viscera, and a diagnosis of the case arrived at from the conference of the hospital staff.

The thoroughness with which this feature of the work is carried out is

distinctly impressive, and forcibly demonstrates the need of such well equipped pathological laboratories as they have in both of these hospitals.

This improved medical service is in operation in both hospitals and individual case records and statistical systems of records are kept on file of all cases, and monthly reviews of each case are routinely carried out, and as improvement or failure takes place, they are so classified, and assigned to wards, as would be consistent with their degree of mental trouble.

This method of the work at these two hospitals seemed very interesting, and the advancement along these lines is getting more as the years roll along.

The patients looked generally well nourished at both hospitals, and observation of them at one of their meals was good evidence that their diet was sufficient.

A great many of the patients work at both places, engaged in the duties of farming, etc., and those that are not allowed to engage in outdoor work, are furnished with diversion in other ways, such as rug weaving, broom making, shoe repairing, and other light occupations.

The entertainment of the inmates is provided for in holding moving picture shows once a week, and they also have dances occasionally, that are of very great benefit in providing exercise as well as amusement.

From our observation in the limited time of our visit, we believe the patients at both hospitals are well cared for, and that the friends of these who are so unfortunate as to require their care can have no just cause for criticism.

Rèspectfully submitted,

J. W. O'CONNOR,

June 6, 1914.

BENJ. F. STURGIS.

THE PRESIDENT: Visitors to the Medical School of Maine.

Dr. Makepeace: Mr. President and Gentlemen:—I was appointed last on that committee, and I really do not know what the requirements are. I had hoped that Dr. Bartlett would be here to report. He would give a better report than I could possibly make. I have given some time to the investigation of the school, but have very little knowledge of other schools. I feel that the Medical School of Maine offers a grand opportunity for any man to get a thorough medical education up to the point of the practical experience which he may take later at the hospital, and things like that. It cannot be beaten in any State of the Union. The student body is so small that they come in contact with their teachers in a way that cannot be accomplished in a larger school. I believe that Brunswick is a good place to make a two years' beginning, and that the time can be employed there to better advantage than anywhere else in learning the technique, the terms, getting familiar with things, finishing off with the year in Portland and the hospital advantages that they have here.

On motion voted that the report be accepted and printed.

THE PRESIDENT: There are one or two matters that I would like to mention before the meeting adjourns. These are things that have either been suggested to me by others or that I have thought of myself.

It has been suggested that the fiscal year of all county societies be changed to commence on January first in order to make it easier

for the county secretaries to find out who are members and report to the State Association their memberships; that the secretary and treasurer of the county societies be made one office, and that this be made a recommendation from this body to the county societies. This would simplify matters along this same line.

It has also been suggested that there be an annual meeting of county secretaries and the State Secretary in December of each year, railway fares to be paid out of the State Association treasury.

Another suggestion is that the election of delegates from county societies take place in rotation. In other words, if there are two delegates, two accredited delegates, that one be elected every year instead of two every two years, and, if there are three, one each year to serve three years; and, if there are six, as there are from Portland, that two be elected each year for three years, and so on, in order that at least one, and in most cases two delegates will hold over, and thus understand the business going on before the State Association.

I make these suggestions for consideration now or at any other time as you see fit. New business is in order now if there are no more reports to be heard.

DR. ROBINSON: I would like to ask, Mr. President, as representing the Committee on Public Policy and Legislation, if the new drug law as passed by this last legislature is satisfactory to the physicians of the State.

THE PRESIDENT: Apologies are in order from the Chair. I called on Dr. Hardy and asked him to make his report, but that was really the report of the Committee on Medical Registration Law. The committee appointed to report to the House of Delegates and the Medical Association, the Committee on Public Policy and Legislation, is a separate committee, a committee which embraces a very much broader line of work. I apologize to Dr. Robinson for not calling on him for his report.

DR. ROBINSON: This new law, as it has been printed in our Journal, says that every time we prescribe any of these drugs, morphine, cocaine or codein, we must make a record of it; that we must keep those records in a separate book and that but a limited number of grains can be given to any one person at any time. As a matter of fact, the legislature is limiting the practice of the medical profession. I do not know how that got through the legislature. I saw Dr. Corson of Germantown, Philadelphia, last summer, and he said that it passed their House of Representatives in Pennsylvania, and went to the Senate. Then the profession got hold of it and they started after their senators and it was stopped in the senate there. Here, I do

not know of any of the profession who knew anything about it until after it was passed and printed. What the object of it is, or who was behind it, I do not know. I was on the Committee on Legislation, and no member of the legislature or anybody else notified me that there was any such thing in contemplation. On inquiry, I found that, at the last moments of the legislature, when the minds of the legislators were taken up with the sheriff matter, somebody slid it through. What are we going to do about it? If it is satisfactory to the profession, we will let it go as it is. If it is not satisfactory, we would like some instruction what to do at the next session of the legislature.

THE SECRETARY: I would like to know, Mr. President, how many men care to put down how much morphine they use.

DR. HARDY: I have an idea that there was a Federal law passed that covers the same thing, and that, whatever action we might take, we cannot dodge the issue. I have a letter from Senator Johnson in regard to it. I know that the bill was before Congress, and I have an impression it was passed.

DR. ROBINSON: It passed in Texas, Indiana, Maine, and one other State, and that is all it did pass. It did not pass in Pennsylvania.

DR. HARDY: I am speaking about the Federal law.

DR. ROBINSON: Do you know, Dr. Hardy, just what the Federal law is?

DR. HARDY: I do not; but I recall that something like a year ago, I had a letter from Senator Johnson outlining the proposed law, and asking if I did not feel that it would be a hardship to a country doctor, and I replied that I did feel that it would be extremely hard.

DR. ROBINSON: They could not pass such a law as that for the States, could they?

DR. HARDY: I do not know.

DR. ROBINSON: They could do it for the District of Columbia; but I do not see how they could do it for the State of Maine.

DR. GILBERT: Mr. President, it seems as though this suggests a line of thought in connection with having some individual responsible for the going over of these laws and calling them to the attention of the various legislative committees. I know I served on the Cumberland County Committee; but I was a good deal like Dr. Robinson — I was waiting for someone to notify me as to what was coming up. It seems as though Dr. Robinson has raised a point that ought to be settled. We ought to vote to make the Chairman of the National legislative committee chairman of all State legislative committees and instruct him to watch these things and try to get the State committees together. Unless something of this sort is done, we will not get anywhere.

THE PRESIDENT: Are you prepared to make a motion along that line, Dr. Gilbert?

DR. GILBERT: I will make that motion. The duties would be the looking over of the various proposed acts and keeping the various county committees posted.

THE PRESIDENT: You move that the chairman of the present committee be appointed?

DR. GILBERT: Take your Public Policy and Legislative Committee. There is a State committee—a committee of this organization. Make the chairman of that committee chairman of your State and county legislative committee.

DR. ROBINSON: It seems to me that it ought to be somebody at Augusta who can be there and watch; some of the physicians who live there.

DR. HARDY: Mr. President—It does not seem to me that there is any necessity of a new committee. You appointed a Committee on Public Policy and Legislation, and if they will attend to their duties, it will solve the problem.

THE PRESIDENT: I am not sure that the county societies have committees. I am sure Penobscot County has no such committee of its own. Has Cumberland County?

DR. GILBERT: Yes.

THE PRESIDENT: May I ask, Dr. Webber, if Washington County has such a committee?

DR. WEBBER: Yes, we have. I think the by-laws require it.

THE SECRETARY: We have none in Penobscot.

DR. GILBERT: I think to do anything you have got to have one man who will go into these things, look into the laws and analyze them, and be ready to suggest some line of action to the county legislative committees, and, if necessary, call a meeting of the county representatives at Augusta or some point in the State, and let these members go back to their counties and thresh it out. At present, we are all at sixes and sevens; we are not doing anything. We should do this in the best way to accomplish results.

THE PRESIDENT: It seems to me we would have to appoint a committee on public policy and legislation, and substitute one man who would be a sort of overseer of this business, or else request the present Committee on Public Policy and Legislation to attend to it.

DR. ROBINSON: There was some excuse for not attending to this before. Dr. Gordon was the chairman of this committee, and he was taken sick, and about four weeks before the legislature met, Dr. Marsh took me by the scruff of the neck and pulled me into it. I knew nothing about what was going on, and prepared myself as best

I could to go over there. Our county society agreed on a certain line of policy. When I got over there, we could not get them together on anything whatsoever. The doctors there were not in harmony at all. The committee was not to blame for that, however. The fact was that sickness did it.

THE PRESIDENT: There is no motion before the house, because neither of the motions was seconded; but it would seem to me that it would be quite proper to ask this committee to attend to this matter. It would hardly be proper to instruct them to do so, because I think it is already included in their duties.

DR. BEACH: Mr. Chairman—I do not know whether it is in order to suggest that it is a good deal to ask one man to run through the enormous mass of legislation that is put out in Augusta every two years, and ascertain just what has a joker bearing on medicine. In order to do that satisfactorily, I think a sum of money ought to be appropriated to have some stenographer appointed, or secretary to the committee, who would be instructed to cover that ground, some person located in Augusta, who can get hold of the bills and find out just what ones have something in them directed against the medical profession. These things are put in under the most innocent names, and look on their face as though put in for purely philanthropic reasons.

THE PRESIDENT: I was about to suggest that what seemed to be needed was a little money for the committee to use to attend to this matter. The matter is still open for discussion. There is no motion before the house.

DR. WILLIAMS: Dr. Robinson asked if we were satisfied with the present existing law. I think we have not answered that question. We have been talking how to prevent the recurrence of another such situation. I would move you that this committee, of which Dr. Robinson seems to be the chairman, be instructed to look the matter up, and suggest at a later meeting the best solution that can be arrived at looking to doing away with or changing the law as it now stands, the committee to report later in our session.

Dr. Williams' motion was duly seconded and received unanimous passage.

DR. BEACH: I would like to make a motion that the chairman of the Committee on Public Policy and Legislation be voted a sufficient sum of money to hire someone for the short time that the legislature is in session each two years to look after the bills presented that have a bearing on the medical profession.

THE PRESIDENT: Would you name the sum?

DR. BEACH: A sufficient amount.

DR. WILLIAMS: Would it not be better to leave the question of appropriation to the next meeting? I make that as an amendment.

THE PRESIDENT: The amendment is seconded, and the amendment is now before the house; that this matter of money for the Committee on Public Policy and Legislation be left until a later meeting. It was so voted.

THE PRESIDENT: Is there any further new business?

THE SECRETARY: I have here a communication from the American Medical Association.

May 4, 1914.

Dr. John B. Thompson,
Bangor, Maine.

My Dear Dr. Thompson:—I note by the A. M. A. Journal that the next annual meeting of your State Medical Society is on June 10 - 11, 1914. I also note that you have no Committee on Health and Public Instruction in your State Society. The Council of the American Medical Association is very desirous of having such a committee in each State, as you probably already know.

The Committee on Public Health Education among Women is also extremely anxious that this committee be provided for in your constitution and by-laws this year and that a committee be appointed.

Will you, as secretary, take the necessary steps to provide for its appointment? After you have secured the committee, may I ask one more favor, and that is will you ask your president elect to name, as one member of that committee, your very strongest woman physician in your State as a member of said committee, inasmuch as she will be invaluable to this committee in furthering some work which we are planning along public health educational lines.

We have already put your name on our mailing list and will mail you very shortly some literature which is being gotten out by this committee.

Thanking you in advance for these favors, I beg to remain,

Very sincerely yours,

LENNA L. MEANES, *Chairman.*

DR. BRYANT: Haven't we some such committee of which Dr. Whittier is chairman?

DR. HARDY: Venereal diseases, I think.

THE SECRETARY: In a way we do have such committees. Dr. Whittier is the chairman of the Committee on Venereal Diseases and their Prevention, and Dr. Jackson of Houlton is on the Cancer Committee. They are not exactly under the names that they wish to have it. We have it kind of split up.

THE PRESIDENT: What action will you take on this communication?

DR. HARDY: I move you, Mr. President, that we comply with the request of the A. M. A. and appoint the committee. The motion was duly seconded and had a unanimous passage.

THE PRESIDENT: How shall this committee be appointed? It has been the custom for the incoming President to appoint the committees for the following year.

THE PRESIDENT: It has been customary to give the sum of fifty dollars to the Cancer Committee; and inasmuch as we have had a report of the Cancer Committee, do you wish to take any action on that?

On motion of the Secretary, duly seconded, it was voted that the usual sum of fifty dollars be granted the Cancer Committee.

THE PRESIDENT: I will ask Dr. Gilbert for his report as editor of the Maine Medical Journal.

Mr. President and Members of the Association:—

During the past year, every effort has been made to bring the Journal up to the standard set by the State and to increase its value to the members of the Maine Medical Association. With this in view, the Editorial Staff have worked hard and conscientiously towards accomplishing this result. The members of the Board have attended meetings regularly and have stood ready to take on additional work.

During the past year, the Journal Review Club, originally started by Dr. Cousins of Portland, saw a new lease of life and proved a most valuable adjunct to the Journal in that its members have reviewed newer measures advocated by prominent authors as published in the various journals, have placed them before the meetings for discussion and finally published them under the heading of "Review of Current Literature." Those members of the Association who have carefully read these abstracts can readily appreciate their value.

The first issue of the year was devoted exclusively to the transactions of the Association, whereas the papers have been distributed through the remaining eleven issues, together with papers read before the various county societies.

We have endeavored, under Medico-Legal, to place before the medical profession copies and extracts of laws enacted during our last legislative session relating to medicine, whereas the Journal has endeavored to support the Council of the A. M. A. in its work on Propaganda for Reform.

I wish we could impress upon the members the interest taken in County News and Notes and Personal News as we have more inquiries along these lines than any other. The county editors have shown an increased interest during the past year along these lines and we sincerely hope that they will follow this up as it is one of the most interesting departments of the Journal.

Your State Journal has cleaned its advertising columns so that it is on the approved list of the Co-operative Advertising Bureau of the A. M. A., and the credit is largely due to the active co-operation on the part of the Bureau. It is only fair to state that the work of the Council on Pharmacy and Chemistry has been along the lines of eliminating from the State Medical Journals advertisements of articles for which unjust claims are made. Had we eliminated such contracts without the Co-operative Bureau, it would have meant a heavy deficit. On the other hand, the Bureau has replaced, not only an equivalent to those we have dropped, but more than double their loss, so that at the present time our Journal is carrying about \$1,000.00 worth of advertising which leaves

us \$850 after paying our commission. From a business standpoint the outlook is better than ever before at any time during its existence.

It has been necessary to run somewhat larger issues of the Journal and in some few ways there has been an increase in the cost of printing but the advertising for the year very nearly pays the printing bill. We would suggest that those members desiring to keep their issues should have them bound, which can be done at a nominal cost, using the index in the June issue.

There have been thirty-seven volumes sent the Journal for review and have been added to the Maine Medical Library, together with U. S. Government and health reports.

In closing, we wish to have the members realize the importance of co-operation with the Editorial Staff, first, in sending in all available material which will be of value to the members and, second, patronizing those concerns and institutions carrying ads. through your State Journal, in as much as we have endeavored to impress upon the prospective advertiser the fact that a State Journal is the only publication which reaches the vast majority of the medical men in the State. With the co-operation of the medical profession in patronizing those concerns now supporting the Journal, we can promise you a still larger and better journal in the future.

FRANK Y. GILBERT.

REPORT OF THE NEW HAMPSHIRE MEDICAL SOCIETY.

For the third consecutive year, it has been my pleasure to attend the meeting of the New Hampshire Medical Society as delegate from Maine.

I noted with considerable interest the work done by the Society and found many interesting measures. For instance, in the House of Delegates, the President has the power to appoint one or more members present to represent absent delegates in order to make up a quorum to do business. This makes it possible to do business at all meetings of the House.

This year the Society tried a one day session and divided its membership into a surgical and medical section. The General Session opened in the usual form and, after the preliminary exercises, the medical section went into another room and during the day papers on medical and surgical subjects were read in their respective rooms.

There was a large attendance at the meetings and annual banquet in the evening and the session on this plan seemed favorable. Two papers of particular interest to all members were read in the open session.

In the evening there was the President's reception, followed by the annual banquet. The Governor of the State was present and responded to a toast. The genial toastmaster also introduced some few other speakers. It proved a very pleasant occasion to all who attended.

FRANK Y. GILBERT.

Dr. Gilbert: As to the matter of the Tri-State Journal, I did not write out any report; but I can make it very briefly.

At the last meeting of the House, I suggested that we endeavor to co-operate with New Hampshire and Vermont in an effort to have such a Journal. With that in view, I wrote the Secretaries of the New Hampshire and Vermont Medical Societies, and succeeded in having a committee of three appointed by each State Society to meet with the committee from Maine. Dr. Sylvester and myself went to Vermont to attend their State meeting and had a con-

ference there, and attended the New Hampshire meeting this year. Vermont was ready to come in, but New Hampshire voted the measure down.

On motion voted that the reports be accepted and printed.

THE PRESIDENT: For the last two years there has been appropriated for the Medical School of Maine the sum of one hundred dollars for a scholarship. This is a part of the business of this House of Delegates, and do you care to consider the matter at the present time?

On motion of Dr. Hardy, duly seconded, it was voted to continue this appropriation.

THE PRESIDENT: There should be an appropriation for the conduct of the State Journal. The unusual situation presents itself that they ask a lesser appropriation than formerly. Will you consider the matter of appropriation for the State Journal?

On motion voted that the sum of \$1,000 be granted from the treasury of the Maine Medical Association for the conduct of the Journal of the Association.

THE SECRETARY: Mr. President, the official year of each county society should begin the first day of January. From one county society I got a notice that they could not give a list of their members in good standing for the reason that they had not paid. That letter came to me about the middle of May. The Secretary said he would try to get the names to me about the first of June, but I have not yet received them. That same county last year failed to get in its membership roll until one month after July. So, you see, I am unable to state the membership in the Maine Medical Association.

Another difficulty is that some members of this State Society pay their dues to Dr. Gehring, and I have no means of knowing about those; at least they were not reported by the secretary last year. By reason of some members thus paying directly to Dr. Gehring, I have, as I say, no means of knowing whether they have paid or not, unless Dr. Gehring sends their names to me. Therefore I get letters both from the American Medical Association and from those same doctors, asking why they are not in good standing in this Association. I think some arrangement should be made to rectify this matter. Also Dr. Gilbert ought to have a correct list of the roll of members who have paid, so that he can send them the Journal. A good many members have complained to the Secretary that they have not received the Journal. This really has made some considerable work, and it does not make for efficiency. There ought to be a combination of the Secretary and Treasurer in some way so that the Secretary may have a correct list of names. Also there ought to be some understanding in regard to the matter of sending checks. I have received a part of the checks and Dr. Gehring has received a part of them. I do not

know whether some counties have paid. I have received their roll of membership, but, officially, I do not know whether those counties have paid or not. Particularly I have in mind one county that had not paid, up to a certain date. I wrote to Dr. Gehring and he replied that he had not received the check. I think that difficulty can be overcome by one of the recommendations Dr. Peters has presented to you, namely, that the county secretaries meet at some place during the year with the State Secretary and the editor of the Journal, and that these matters be talked over, and in some way agree on a uniformity of report as to new members, deaths, and particularly get the rolls of paid memberships in. I know that Dr. Moulton had just the same difficulty I have had. This is no particular fault of the members, but it is the result of the general tendency of busy men to neglect such things. It seems to me that, if we could have a meeting of the county secretaries with the State Secretary at some convenient place, we could talk matters over and formulate rules and uniform methods of making out the rolls and getting the dues from the members early enough so that there will be no doubt as to who are members in good standing at the date of the annual meeting.

DR. BEACH: Mr. Chairman, is not that question of members paying directly to the State Treasurer covered by the law of the American Medical Association which requires them to be members of the county society?

THE SECRETARY: It has been the practice in this State, handed down to me by Dr. Moulton, that there are certain members — quite a number of them — who do not belong to county societies, never have belonged to them, and who pay directly to the State —

DR. BEACH: I did ask about the tradition; but is it not a rule of the American Medical Association?

THE SECRETARY: I do not know.

DR. HARDY: This matter came up two or three years ago, Mr. President. These members to whom the doctor refers were members before the re-organization, were somewhat opposed to the re-organization, and I think the House of Delegates two or three years ago took some action in the matter and allowed the practice to continue. They were mostly the older men of the State Society, and the House of Delegates at that time, I believe, decided to humor them a while longer.

THE SECRETARY: I think last year there was some vote passed that if one of those members failed to pay his dues during the year, he would have to join a county society another year. I think there is nothing in our Constitution which permits them to belong to the State

Society and pay direct to the Treasurer, but, on the other hand, if they fail to pay to the Treasurer even for one year, then they must join a county society to get in.

DR. BEACH: Mr. Chairman: Of course those men are reported as members of the American Medical Association, and is the House of Delegates within its rights in going against the laws of the American Medical Association to that extent? In other words, can we do what we have been doing?

THE SECRETARY: They seem to accept them.

DR. ROBINSON: Mr. Chairman — Dr. Thompson's difficulty could easily be met by instructing the Treasurer, as soon as he receives those checks, to notify the Secretary. Then he would have a record of all who had paid. Of course, allowing them to remain members in this way is entirely contrary to the Constitution as we adopted it. If I remember it right, we came into the State Society through the county societies, unless there was no county society that we could join.

THE PRESIDENT: This matter was thoroughly, almost bitterly, threshed out two or three years ago in the House of Delegates, and I think there are some gentlemen here who can tell us just exactly how the matter stands. I think it was finally decided two years ago.

DR. GILBERT: Yes, sir, that is true.

THE PRESIDENT: I think Dr. Campbell has a good memory.

DR. CAMPBELL: I remember the fight all right. I would rather Dr. Gilbert would state it if he will.

DR. GILBERT: I know the matter has come up every year, because there has been a conflict in the Journal work, and it has been a bone of contention on the part of the State Secretary and the State Treasurer. Two years ago the thing came to a head. A motion was made at the time by Dr. Gehring, the State Treasurer, to abolish this membership, but I think the final action was that they should continue as they are; that we had no right really to attempt to kick them out of the State Association; that in the course of time, as they were mostly old members, they would pass away and the thing would solve itself. It seemed to me that was the only logical solution then, and I think it is now. I believe that with the change of the commencement of the Society's fiscal year to January first, and if the other matters suggested were adopted at this meeting, it would go a long way towards straightening out some of these troubles we have had for so long. This last year, if I remember correctly, there were about forty members on the old State membership. We ran until I think very near December without any knowledge that we did not have these forty odd men on the Journal mailing list. There is always a juggling

around, up and down, when these reports come in. The girl in the office goes over them. I was in Dr. Gehring's office, I think in November or December, and, in going over his books, I stumbled on to some members I knew were not getting the Journal, and I began looking the matter up. I then sent to Dr. Thompson for his complete list, and when he sent it in I saw that these forty odd members were not on his list. I sent him as complete a list as I had at that time. From that time to the May issue, we sent copies to nearly 690 men, per issue. Now reports come in that have varied that a few either way; that is, one county may add a member or two, and another county may take off a few. I believe that our present membership, so far as I can estimate it in my field of work, must be somewhere between 675 and 690 men.

(The Secretary reads record of meeting covering amended by-law referred to.)

"Sec. 2. Any active member of the Association whose dues are in arrears more than one year shall forfeit his membership in the Association and may be reinstated only by becoming an active member of some component county society."

"Any member who is under sentence of suspension, or expulsion from, or whose name has been dropped from the roll of members of this Association or of a component Society, shall not be entitled to any of the rights or benefits of this Association, nor shall he be permitted to take part in any of its proceedings until he has been relieved of such disability."

THE PRESIDENT: To what hour tomorrow shall we adjourn, gentlemen, when we do adjourn? The general session is at nine.

DR. ROBINSON: What further business is there?

THE PRESIDENT: Reports of Councilors not present tonight, one or two committee reports. We really have transacted the bulk of the routine business tonight. There may be new business, and there may be gentlemen who wish to discuss matters that have been laid upon the table.

DR. HARDY: I suggest that we meet at half past one tomorrow.

THE PRESIDENT: I appoint 1.30 tomorrow afternoon as the hour of meeting, in the Aldermen's Chamber, City Hall.

Voted to adjourn.

Adjourned.

J. B. THOMPSON, *Secretary*.

SECOND MEETING OF HOUSE OF DELEGATES.

June 10, 1914, 1.30 P. M.

Meeting called to order by the President.

THE PRESIDENT: Last evening, we were unable to hear the reports of several of the Councilors. If there is any Councilor from any district present from whom we did not hear, we would be glad to do so now. If not, is there anyone who has a committee report to present? We have had reports from the Cancer Committee, Committee on Public Policy and Legislation, Committee on Scientific Work and the Committee on the Medical School of Maine.

DR. ROBINSON: I believe there was referred to this meeting the appropriation of money for the Committee on Public Policy and Legislation, and they advise that about fifty dollars will probably be what will be necessary.

THE PRESIDENT: I think nearly everyone here was present at the meeting last evening, and that it is understood that this appropriation is to enable the Committee on Public Policy and Legislation to employ someone at Augusta to keep track of legislation in order that nothing may be overlooked. Was the question also raised, Dr. Robinson, of the expenses of the Committee?

DR. ROBINSON: That we did not bring up. This was all that was referred at the time.

THE PRESIDENT: It seems that the expenses of the chairman of that Committee, at least, ought to be paid. If he is to travel about the State in the interests of the Association, it is important that he should have his expenses. Perhaps all the Committee ought to have their expenses within a reasonable limit. I speak freely, because, although my name is on the Committee this year because of my official position, it will not be next year. What is your pleasure, gentlemen, in regard to the fifty dollars appropriation for the purposes I have mentioned?

On motion voted that the above amount be appropriated to employ someone at Augusta to keep track of legislation, as aforesaid.

THE PRESIDENT: Do you care to do anything in regard to the expenses of this Committee, or its chairman?

On motion of Dr. Marshall, voted that the actual and necessary expenses of the chairman and his associates be met by the Association.

THE PRESIDENT: Dr. Gilbert, did you report last night as delegate to the National Legislative Council?

DR. GILBERT: No, Mr. President, I do not know just what to say on that. I was unable to attend the meeting held at Chicago, but I

have taken their official reports and gone through them as well as I could. I was unable to make any report because a great deal of the time was devoted to public health questions; and, as I had these other committee reports to make out, I simply let it go. I really have not accomplished anything in that capacity.

THE PRESIDENT: May we not consider at this time those suggestions made last night?

DR. GILBERT: It seems that something should be done with reference to the recommendation to the House of Delegates with regard to making the fiscal year of the county societies begin January first. There was another suggestion made in relation to it that I cannot for the moment recall.

THE PRESIDENT: One suggestion was that an annual meeting of the State Secretary and the Secretaries of the county societies be held in December, and another was the advisability of making the Treasurer and Secretary of each county society one office in order to expedite their business.

DR. GILBERT: I will make a motion to the effect that the House of Delegates recommend that the county societies amend their by-laws so as to provide that the fiscal year begin on January first.

THE PRESIDENT: This would be of great convenience to the State Association, particularly its Secretary.

THE SECRETARY: Mr. President, how is that to be brought about? Who is to bring it to the notice of the county societies?

THE PRESIDENT: If the motion prevails, I should suppose it would be the duty of the State Secretary to inform the Secretaries of the county societies of the action of this body. I should think that would be sufficient notice.

And the motion, being duly seconded, received a unanimous passage.

THE PRESIDENT: What is your pleasure in regard to the matter of the annual meeting of the State Secretary, the editor of the State Journal, and the various county secretaries, to be held in December? A suggestion was made that their railway fares be paid. Such a meeting would seem to be of great advantage, not only to the county societies, but to the State Association.

DR. GILBERT: I would like the motion, when made, to include the county secretaries and county editors. In some counties the county secretary is the county editor, but in others they have a separate man serving as county editor. I would like to make a motion to the effect that such a meeting as outlined be brought about, through the office of the State Secretary, to take place sometime in December.

THE PRESIDENT: It seems to me that this will bear discussion. How many county editors would that include outside of the secretaries?

DR. GILBERT: I think about four or five.

THE SECRETARY: I would like to say that the American Medical Association has such an arrangement, and they invite the State Secretaries of all the States in the Union to meet at some appointed place. Last year, it was at Chicago. They get together and talk over more efficient ways of accomplishing the work of the Secretaries, more uniform regulations as to blanks, and so forth. The great difficulty that the State Secretary has had in this State has been in getting reports from the different county secretaries. It seems to me that if a meeting could be held in December, and the official year of the counties made uniform, this difficulty would be largely obviated. As it is now, some of the county secretaries who are newly elected do not know what their duties are, and those who do know, perhaps through neglect or carelessness, omit to send in their reports. This is very annoying, and requires a lot of correspondence. By reason of this, a lot of people do not get registered as they should, and consequently get letters from the American Medical Association stating that they are not in good standing. The State Secretary gets blamed for that, when it should be the County Secretaries who have not sent in their reports. I think this resolution of Dr. Gilbert's should be fixed in some manner so that the County Secretaries shall meet the State Secretary and have the thing understood, and thus matters run on in a more efficient and business-like way. I doubt, unless railroad fares are paid, if it would be possible to get them all to attend such meetings. A man will go sometimes if his railroad fare is paid, when he would not feel like paying it out of his own pocket just to talk over a matter of business which, perhaps, he does not care particularly about. For that reason, I think the railroad fares should be paid by the State Association.

DR. WARREN: I would like to offer a word of explanation, if I may be allowed. At the last meeting of this Association, I had the honor to be appointed a delegate to the American Medical Association. I got a letter from our esteemed Secretary notifying me that, as I had not been a member of the National Association for two years prior to my appointment, I could not serve as a delegate from this Association; also that my alternate, Dr. Marsh, had not been able to satisfy the requirements and that he would not be a delegate to the National Association. I make this statement so that I may put myself right. I would like to have gone and I had my hotel rooms all engaged; but I am going to do a better thing. I am going down to

old Yale next week and see my class, which perhaps will do me just as much good as though I represented this Association at the meeting of the National Association. It seems to me that we ought to have been notified, or we ought to have known something about it.

THE PRESIDENT: May I ask Dr. Gilbert if he intended in his motion that the railroad fares should be included?

DR. GILBERT: If that is the proposition, my personal idea would be that the hotel bills be paid, and leave the railroad fares to be paid by the various county societies. That would be my idea of the more rational way to divide it; but I am willing it should go either way. My motion was intended to include personal expenses.

Will someone make a motion so as to have it definitely before the House?

DR. ROBINSON: The original motion included the secretaries of the counties; and, as the editors are in most cases the secretaries, why should we complicate it by adding this to it? Why not say the secretaries, and, if they cannot go, then send the editors? Wouldn't that be all right, Dr. Thompson, that they be paid their traveling expenses?

On motion, duly seconded, it was voted that the Secretary of the State Association be empowered to call, in the month of December annually, a meeting of the State Secretary with the county secretaries and county editors for conference.

THE PRESIDENT: This does not cover the matter of expenses, which was not included in the original motion. If you care to make a motion in regard to expenses, the Chair will be delighted to entertain it.

DR. ROBINSON: I move that the county societies be directed to pay the railroad fares, and that this Society pay the hotel bills.

THE PRESIDENT: The American Medical Association has a by-law which reads that no man can be a representative from a State Association until he has been—not a member, but a fellow for two years preceding his election as such delegate; and in order to become a fellow of the American Medical Association you must subscribe to the Journal. Some of us think that this is not the fair way to create a representative; others think it is perfectly legitimate. Anyway, that is the way the matter stands. Personally, I think this is a very flagrant example of what may take place. Our esteemed ex-President could not attend the meeting simply because he preferred to read his neighbor's Journal instead of buying one, just exactly as I do.

DR. W. BEAN MOULTON: I will say that some three years ago, Dr. Sawyer had the same difficulty when he was appointed. At that time I wrote the American Association and explained the situation of his being our Ex-President, and the Secretary wrote back and said that, if he would come on, they would give him a good time.

THE PRESIDENT: Are there any members present now who can contribute any of the reports for which we have asked? Are there any Councilors present who have not reported?

DR. COCHRANE: I have a report for the First District.

The affairs of the county secretaries in the first district during the past year have been exceedingly prosperous. In both Cumberland and York counties, genuine efforts have been made to support and advance the interests of the profession in the State. Uniform and earnest support has been given to the efforts of the American Medical Association in every attempt to advance the knowledge, efficiency and effectiveness of our members, individually and as a whole. Both societies in this district have endorsed and supported all efforts to raise the standard of requirements for those entering upon a medical career, believing that today the demands upon the profession demands a character and mental equipment such as called for in no other profession. We also feel that it is dependent on the members of the Maine Medical Association to see that the young men who come to Maine for a medical training shall, in the future, as in the past, be fitted to go anywhere and make good among the graduates from any other State or school. To this end there has been given a uniform and earnest support to all efforts to advance the interests and keep well to the front our small but efficient Medical School of Maine.

The attendance, interest and work of Cumberland County Medical Society has not been excelled by any society in the State. It has, from time to time, by arranging for papers by many eminent medical authorities from different parts of the country, exerted a very potent influence in advancing the knowledge and good work of the physicians of the State.

York County Medical Association has held quarterly meetings which have been well attended. It is in a very flourishing condition. Its territory is large and composed mostly of small towns. At the inclement seasons of the year it is very difficult for many of our members to get to the meetings, yet every meeting has been a success, both in attendance and the work accomplished.

There are 110 physicians in the county. In May, 1913, we reported to the Secretary of the State Association 67 members of York County Medical Society. Three members, moving elsewhere, took steps to affiliate with other State societies. There were two or three deaths of members. We admitted 5 new members and have other applications to be acted upon. Last May, 1914, we reported to the Secretary a membership of 69, a net gain of two members.

It is the purpose of the Society to yet include in its membership every reputable physician in its territory.

Respectfully submitted,

J. D. COCHRANE, *Councilor First District.*

On motion voted that the report be accepted and placed on record.

Voted to adjourn, to meet again at the close of the regular afternoon session.

Adjourned.

J. B. THOMPSON, *Secretary*.

THIRD MEETING OF THE HOUSE OF DELEGATES.

ALDERMEN'S ROOM, CITY BUILDING, 4.45 P. M.

June 10, 1914.

Meeting called to order by the President.

THE PRESIDENT: We will first hear from Dr. Holt, who will read the report of the Committee on Venereal Diseases.

Dr. Holt: We should give the chairman, Prof. Whittier, the credit of the work carried on by this committee. He has done it most excellently well. The report will be printed and I might say that \$778.75 has been collected and \$556.25 disbursed, leaving \$222.50 in the treasury. Prof. Whittier has already raised \$200 this year, and we have more subscriptions coming in. He has some excellent letters from different parties which will be printed in the Journal, so I need not read them. It is certainly gratifying that we have a man like Prof. Whittier giving attention to this work. I have tried to help him a little in collecting subscriptions.

On motion it was voted that the report be accepted and placed on file.

On motion voted that fifty dollars be appropriated for the use of this Committee.

THE PRESIDENT: May we not be favored with a report from Dr. Hatch as Chairman of the Committee on Public Health among Women?

Dr. Lucinda B. Hatch: Mr. President and Delegates—I had the privilege of being appointed Chairman of Public Health and Education among Women in the State. There was no appropriation made for any special work in that direction, and I regret to say that not a great deal of work has been done, except in a very small way. The work has consisted of talks given by request of doctors in connection with the Y. W. C. A. work, and the mothers' meetings organized by the school committees here, at Westbrook, and at Lewiston, and factory talks that have been given at noon to the young women in the factories on matters pertaining to prevention of disease in industrial occupations and

the general care of the health. The Women's Literary Union has asked your chairman to be one of the committee for the health day that their organization sets apart for the year. It is hoped that the coming year some appropriation may be made for more work, and that the work which is being done by other branches of the American Medical Association in baby saving work may be done here in connection with the milk stations and with the dispensaries. The American Medical Association is sending out score cards, and the babies are examined at such places as milk stations and dispensaries for their general condition, and then some medal or prize is offered, not for the healthiest baby, but for the baby that has made the greatest gain in health, and tracts are given to the mothers at the health stations with that object in view.

THE PRESIDENT: It seems to me, gentlemen, that this comes the nearest to social work of anything done under the auspices of this Society; and I think we owe a vote of thanks to Dr. Hatch for carrying on this work without any appropriation as well as it has been done. What shall we do with this report?

On motion, duly seconded, it was voted that the report be accepted and published, and that an appropriation of fifty dollars be made to this committee for the work for the coming year.

Dr. Hatch: Mr. President—There is something that had not occurred to me until Dr. Cabot spoke this afternoon that is being done, and that is the work for the unfortunate women. It has happened to be my work for the past seven years to be the physician in charge of the Temporary Home, where we have, during the year, an average of twenty cases, and the work there has been most satisfactory. I have not thought of it as public health education work. It was simply there to be done, and has been done by the staff of matrons and Board of Directors getting those girls into good physical condition, with a better moral standard; and we have accomplished, without realizing it, very much of the work that Dr. Cabot spoke about today. I thought this might be a matter in which you would all be interested.

THE PRESIDENT: Are there any Councilor's reports to be made that have not been handed in?

Dr. E. S. Cummings, of the Second District, reads report.

To the President and the House of Delegates:—I hereby submit my report for the past year as Councilor of the Second District. I have attended nearly all the meetings of the Androscoggin County Medical Association. The Association is in a prosperous condition and meets monthly except July and August.

There are at present 53 members. There have been 4 new members taken in. We have several times had men from away give papers at our meetings and at such times invited members of neighboring Associations to attend.

At the May meeting, Dr. William Seaman Bainbridge of New York gave a fine paper upon "Goitre." On the whole it has been a very good year for Androscoggin. On March 30th, I visited Oxford County. They had a very interesting meeting. The meetings are held quarterly and are well attended, considering the long distances members have to travel. They have 38 members, 7 new and have transferred one and dropped one. Average attendance, 15. I have not visited Franklin County this year, owing to a misunderstanding,

my not being notified of the meetings as I thought I would. Shall endeavor to visit them the first meeting in the fall.

Respectfully submitted,

E. S. CUMMINGS.

Dr. G. H. Coombs of the Third District reads report.

The Sagadahoc County Medical Society has held its meetings quarterly since its organization, the presence of two other Medical Clubs in Bath, the only city in the county, making more frequent meetings inadvisable while the scattered residences of members serves to reduce attendance in stormy weather. In spite of this, the work of the society has been good. The recent union of the two local clubs augurs for a more active county society, and it is hoped the members will take a personal responsibility in increasing membership and urging active participation in the meetings of the society.

Topographic conditions in Knox County are very similar to those of Sagadahoc, yet this society has increased in membership nearly to the limit of its present possible membership, and much interest is taken in all the meetings which, however, are held but six times yearly. The plan of an occasional outside speaker of note has been received with great favor, and the society has been fortunate in listening to several papers from visitors in the past year, extra meetings being twice held for this purpose.

It is pleasing to record that nearly all the physicians of Lincoln County have taken up membership in one or other of the County Societies nearest their home, and it is hoped that the remainder will soon follow this example.

It seems extremely desirable that each member of these societies shall feel that mere membership does not cancel the obligation he owes to the society for membership, and it is suggested that all whose eyes see, or ears hear this report, shall become, from now on, an active member in word and deed, to further increase the membership of this district, and to make these County Societies models in every respect, thus paving the way to a larger attendance of the State Association in June of whose advantages many seem to be strangers.

G. H. COOMBS,

Councilor Third District.

On motion voted that the report be accepted and published.

Dr. Dickinson: Mr. President, I would make a brief verbal report for the Sixth District. In Aroostook County, we have a flourishing medical society, with nearly all the practitioners belonging. We have two meetings a month which are well attended, and we have papers from our local membership and outside men.

Penobscot County has meetings every month. I wish I were a little handier to Penobscot County, so that I might attend them. Piscataquis County has four meetings a year which are fairly well attended. Their membership is a bit scattered; but they are in a flourishing condition, nevertheless.

On motion, voted that the report be accepted and published.

THE PRESIDENT: If there are no further reports, it will be in order to take up new business. Dr. Marshall has a matter which he wishes to present.

DR. MARSHALL: I think one of the suggestions of our President last evening, that it would be a good plan if an arrangement could be

made whereby the term of service of the delegates from the different counties should not expire at the same time, is a good one. At present, each county elects its delegates for the same length of time. The proposition, as I understand it, is that a certain number should go out one year and a certain number the next; and that thus there would be constantly carried along some members who would be acquainted with the work that is under consideration from year to year. I would therefore present the following as a recommendation to the Association: That the by-laws be changed so that the term of service of members of the House of Delegates from the same county shall not expire at the same time; that there shall be retained a delegate or delegates who has or have some knowledge of the matters acted on and carried over from year to year. I make that as a motion.

DR. GILBERT: I second the motion.

The motion received unanimous passage.

Voted that the annual dues be continued at two dollars a year.

DR. SYLVESTER: I have a report as delegate to Vermont.

In October, 1913, the Vermont Medical Association held its annual meeting and celebrated its one hundredth anniversary at Burlington. Its three days' session was instructive and entertaining. The University Medical School buildings were used for the regular sessions and Burlington's hotels for the social gatherings and banquet. Dr. Deaver of Philadelphia operated at the Mary Fletcher hospital on a series of selected cases in his usual rapid manner. As he took his force of assistants by private car with him, he made the whole stage setting and is certainly a star performer. Prof. Gilman Thompson gave the address. The whole body of doctors assembled were enthusiastic and cordial. Dr. Tinkham, Dean of the Medical School, was the host of the occasion, a charming gentleman, who extended to Dr. Gilbert and myself of Maine every courtesy. The suggestion that upon the three northern New England States rested the responsibility for preserving the traditions of the Yankee and that we of Maine wished them to understand that we were one with them for professional, fraternal relation was received with great enthusiasm. At the close of the second day's session, a meeting was held of the delegates from Maine, New Hampshire and Vermont to discuss a union Medical Journal of the three States. All agreed that it was desirable and the Vermont delegates were unqualifiedly in favor of working out a union basis. The delegates from New Hampshire felt that they had no authority till their State meeting in May this year. We recommend that a delegate be sent every year to Vermont. Burlington is a beautiful city. It is a magnificent auto trip through the White Mountains and at a good season to travel. Last but not least, the Vermont doctors are all good fellows.

C. B. SYLVESTER.

THE PRESIDENT: It is a matter for congratulation that some of our members go into the near-by States and bring back accounts of how they do things there, and, if it meets with your approval, this report will be accepted and placed on file. It was so voted.

THE PRESIDENT: If there is no other new business, it will be proper to take from the table any matters which were laid upon it last evening.

THE SECRETARY: Mr. President—Before that, I would like to read a communication from the New Jersey Medical Society.

Dr. D. C. English sends proper credentials as delegate from New Jersey, together with a personal letter, regretting his inability to attend the meeting and extending best wishes to the Association.

THE SECRETARY: I simply read this, because I have a letter from Dr. English, in which he expresses his sorrow at not being present at this meeting; and he wished me to extend his greetings to the Association.

THE PRESIDENT: Had we better not have a final meeting of this body tomorrow at half-past one, just prior to the general session? If that meets with your approval, I will designate that hour.

Voted to adjourn.

Adjourned.

J. B. THOMPSON, *Secretary*.

FOURTH MEETING OF THE HOUSE OF DELEGATES.

JUNE 11, 1914, 1.30 P. M.

Meeting called to order by the President.

THE PRESIDENT: I have here a report from the Councilor from the Third District, which I will not read. He states that things are in satisfactory condition in Sagadahoc and Knox Counties, also in Lincoln County, in which county nearly all the physicians have joined the county society.

Voted that the report be accepted and placed on file.

THE PRESIDENT: There are two or three small matters of business to be attended to. So far as I know, the salary of the Secretary, Dr. Gilbert's salary and expenses in connection with running the Journal, have been voted each year. It seems to me that it would be a good idea, if it is within the province of this body, to fix those salaries until they may be changed by some act of this body, and thus save some trouble. We have nearly overlooked the fact at this time that the salary of the Secretary is \$200 a year. Why not fix it at that?

On motion, voted that the Secretary's salary be fixed permanently at \$200 a year, and the amount appropriated therefor from the treasury.

On motion voted that the salary of the editor of the Journal be fixed permanently at \$200 a year, with expenses.

On motion voted that the expenses of one delegate to the American Medical Association meeting next year be paid by this Association.

On motion voted that the expenses of the President in visiting the various county societies be paid by this Association, including railroad fares and legitimate hotel bills.

THE PRESIDENT: I will ask the Nominating Committee for their report.

DR. HOLT: For First Vice President, Dr. A. L. Stanwood, of Rumford; Second Vice President, Dr. L. A. Dascombe of Skowhegan; Secretary, Dr. J. B. Thompson, Bangor; Treasurer, Dr. E. W. Gehring, Portland; Councilor, Third District, Dr. A. F. Williams, Phippsburg; Councilor, Fourth District, Dr. L. G. Bunker, Waterville.

Committee on Scientific Work:—Dr. F. Y. Gilbert, Portland; Dr. H. E. Milliken, Portland; Dr. J. B. Thompson, Bangor (*ex officio*).

Committee on Public Policy and Legislation:—Dr. D. A. Robinson, Bangor; Dr. T. E. Hardy, Waterville; Dr. S. J. Beach, Augusta; Dr. J. B. Thompson, Bangor (*ex officio*).

Committee on Venereal Diseases and Their Prevention:—Dr. F. N. Whittier, Brunswick; Dr. A. L. Stanwood, Rumford; Dr. E. E. Holt, Portland; Dr. F. H. Jackson, Houlton; Dr. Addison S. Thayer, Portland.

Committee on Necrology:—Dr. James A. Spalding, Portland.

Cancer Committee:—Dr. F. H. Jackson, Houlton; Dr. B. L. Bryant, Bangor; Dr. H. H. Brock, Portland.

Delegates to American Medical Association, 1915:—Dr. R. H. Marsh, Guilford; Dr. W. C. Peters, Bangor.

Visitors to the Maine Medical School:—Dr. B. F. Makepeace, Farmington; Dr. J. L. Willis, Eliot.

Delegate to the National Legislative Council:—Dr. F. Y. Gilbert, Portland.

Delegate to National Council on Medical Education:—Dr. F. H. Gerrish, Portland.

Chairman Committee on Public Health among Women:—Dr. Lucinda B. Hatch, Portland.

Committee on Health and Public Inspection:—Dr. Lucinda B. Hatch, Portland; Dr. S. J. Bassford, Portland; Dr. C. B. Sylvester, Harrison.

Committee of Arrangements for 1915 meeting to be at the suggestion of the county in which such meeting shall be held.

Committee to represent Maine Medical Association at the State Anti-Tuberculosis meeting:—Dr. S. E. Webber, Calais; Dr. A. L. Smith, Machias.

THE PRESIDENT: It was voted at the first meeting of the Council to appoint a new committee—a Committee on Health and Public Instruction; and, while we are acting upon this, it will be necessary for the Nominating Committee to appoint a new committee if they can.

THE SECRETARY: It was spoken of that we would try and get that combined with the Committee on Public Health among Women; but the resolution as finally passed was that a Committee on Health and Public Instruction should be formed.

THE PRESIDENT: I make the suggestion that that committee be left to the incoming President to appoint, with a request to put Dr. Lucinda B. Hatch on it. She is already on the Committee on Public Health among Women. On motion it was so voted.

DR. HARDY: Mr. President—It does not seem to me that such a course is wise. The American Medical Association asks for the appointment of this committee in order to carry out its work. The work of this committee is entirely apart from the work of the committee that Dr. Hatch is now chairman of, and it seems to me that appointing the same members on these committees might mix up the work of the A. M. A.

THE SECRETARY: The communication from them asked that we have a committee headed by a woman, and also asked for another committee, which we granted—the Committee on Health and Public Instruction.

DR. HARDY: It seems to me, Mr. President, that in appointing this committee we are simply aiding the national association to carry out its work, and that if we proceed in any different manner than as suggested by them, there are likely to be unsatisfactory results.

THE PRESIDENT: That was not the sense of the motion at all. The sense of the motion was this, and I made it for the following reason: I have had from the A. M. A. this year numerous letters in regard to this subject—Committee on Health and Public Instruction—and in them this woman factor is very prominently mentioned. Therefore, I could not see any reason why we should not put Dr.

Hatch on the two committees. She is already on one, and I think it would be wise to put her on this committee. There is no objection to a man being on both the Venereal Diseases Committee and the Cancer Committee. I do not wish, however, to appear to dictate in the matter. I merely made the suggestion.

On the question being called for, it was voted that a new committee of three be appointed, as previously stated, and that Dr. Lucinda B. Hatch be put on that committee.

On motion voted that the report of the Nominating Committee be accepted, and that the Secretary cast the ballot of the Association for the officers nominated.

The Secretary cast the ballot of the Association for the officers and committees nominated, and they were declared by the President duly elected.

DR. CAMPBELL: As a member of the Nominating Committee, I would like to state that the reason why Dr. Gilbert was nominated as delegate to the American Medical Association was because none of the Ex-Presidents were eligible, because of the fact that they had not been members of the American Medical Association for two years.

DR. DICKISON: Mr. President — Although the list of officers has been voted on, if the Nominating Committee will listen to a suggestion, I would like to make one. I see they have shifted the Cancer Committee, having two new members.

THE PRESIDENT: It was Dr. Swasey's express wish to be left off; also Dr. Webber's. They both said they would like to be relieved of any further duty in connection with it.

DR. DICKISON: What I was going to suggest was this: For a number of years, I have been trying to persuade the members in Aroostook County to come down here and attend these meetings. This year I have got two of them, and it would please the members up in the northern part of Aroostook County if we could get one of them on one of those committees. I think Dr. Kilborn would be very glad to serve in place of Dr. Jackson of Houlton, who has been there for some time. I know it would please the upper end of the county to get a member on that Committee.

THE PRESIDENT: I do not see how we can change matters now, Dr. Jackson having been declared elected, unless he sees fit to resign. There might be a roundabout method of re-considering our vote, and have the election of the whole list of officers rescinded, and then asking the committee if they cared to make a change, and, if they did, to start the thing all over again. I cannot think of any other

method by which it could be done. I await any motion or suggestion in regard to the matter.

DR. DICKISON: Perhaps it had better be left as it is now. I did not hear the list of officers read, and the motion was carried before I had time to make the suggestion.

DR. CAMPBELL: Mr. President — I would say in regard to that matter that personally I had no choice in the matter. Dr. Webber, who had served on that committee, suggested that Dr. Jackson be continued, and Dr. Holt and myself were both agreeable to it, not knowing that there was any opposition. The opportunity was given to object when the matter was presented if anyone was so disposed.

DR. DICKISON: I did not hear the names.

DR. CAMPBELL: We had no personal choice in the matter, except that he was familiar with the work.

THE PRESIDENT: If the members of the Council are ready to submit their report on the Treasurer's books, we will be glad to hear it.

Dr. Gehring: Mr. President and Gentlemen — The account as it stands is briefly this:

In June, 1913, we had cash in the treasury,	\$2,732.30
During the past year we have received as interest on money in the banks here in Portland, and as cash from dues,	1,451.57
	<hr/>
	\$4,183.87
The expenditures for the year amount to	2,239.17
	<hr/>

Leaving a balance in the treasury on June 2nd,	\$1,944.70
This account has been audited by Dr. Dickison and Dr. Cummings.	

Voted that the report of the Treasurer be accepted and placed on file.

THE PRESIDENT: Is there any other business to be transacted before this body adjourns?

DR. HARDY: Mr. President — In regard to the report of the Treasurer: of course action has been taken for this year; but, if we take into account the shrinkage in our surplus, I think that next year, or very shortly, we will have to consider increasing the dues. At the meeting of this House of Delegates, night before last, we appropriated an amount equal, if not more than the amount of the dues for the ensuing year. The surplus of \$2,000 last year has been reduced to \$1,000 this year. I think next year we will have to dip into our pockets somewhat.

Dr. Miner: Mr. President — I would just like two minutes to report Washington County affairs, being a delegate from that county. I am sorry to say the written report is not here. Our Society is in a flourishing condition. We have averaged from twenty to thirty members at each meeting. We have

added five new members during the past year. We have given up almost wholly the system of reading papers, rather taking up case reports. We have three meetings a year, and discussions are entered into quite freely at each meeting by all the members present. I thank you.

On motion voted that the report for Washington County be accepted and printed.

THE PRESIDENT: There was \$50 appropriated for the use of the Committee on Public Policy and Legislation, this money to be used to hire a man at Augusta next winter to follow the legislation, and enable this committee to know what is going on. The committee has also been instructed to take entire charge of handling the matter of the new registration law before the next legislature, but no funds have been appropriated for that purpose. The only way in which they can present this matter to the legislature is through an attorney, and, if they are going to present a new law, they certainly must have some help of that kind, it seems to me. I do not know whether it would be satisfactory to let the matter rest as it is, and let them carry on the business in any way they see fit, and then pay the bills afterwards, if there are any small ones; or whether it would be wise to consider the matter now. As Dr. Hardy says, our surplus, if I remember right, about three years ago was about \$4,000. Now it is about half that.

DR. GILBERT: It seems to me, Mr. President, that this matter, when it is submitted for action, should carry with it a suggestion for assessment of the various county societies, the State Society to stand ready to make up the deficit if there is one.

DR. HARDY: This committee, Mr. President, is appointed by the State Association. I do not believe that you can reasonably ask the county societies to stand any assessment of that nature. I think you have appointed this committee, and I think you have got to finance it. I do not think it fair nor right to ask the county societies to do it.

DR. GILBERT: The State Committee, as I understand, drafts the law; but will expect the co-operation of the county societies, and it is a matter of equal interest to all members of the profession. I believe the matter, put to Cumberland County, would receive support in the way of assessment or voluntary contribution, and it was with that in mind that I suggested it. This is a matter that concerns the profession as a whole, and, as Dr. Hardy says, we are coming to an increase in our dues in a comparatively short time.

DR. MARSHALL: Mr. President—Was not a vote passed yesterday that practically covered this matter, that is, the matter of the expense of this Committee on Public Policy and Legislation? Fifty dollars was appropriated for a special purpose, and then afterwards a vote

to pay the expenses of the President and members of the committee to whatever extent they had to go.

THE PRESIDENT: I think that was limited to hotel bills and traveling expenses. That was the intent of the motion anyway, simply to provide for personal expenses. I do not think any mention was made of the possibility of being obliged to pay a lawyer one hundred or two hundred dollars for his services. We have a very conservative and efficient committee appointed, and I should think that the State Society would not run any very great risk if they agreed to finance what they do. It seems to me that this is the most important thing that this State Association has to deal with during the interval between this meeting and the next.

DR. MARSHALL: It seems to me that it is a difficult thing to say just how much is going to be needed; and I would be in favor of giving the committee power to do whatever was necessary to carry out the object desired, and backing them up in it.

THE PRESIDENT: That same power was given to the committee which drafted the bill, and I would like to ask Dr. Hardy if that committee has let the Society in for any very large bill?

DR. HARDY: I do not know what our attorney's bill is; but I do not think it is very large. Besides drafting the bill, he spent two afternoons in his office with us. I do not imagine the whole bill would be over fifty or seventy-five dollars. If the present committee should decide to continue employing him, I imagine there would be some reduction in the size of the present bill, so that something would be saved in that way. I do not think there will be any very large expense attached to it.

On motion, duly seconded, it was unanimously voted that this committee be empowered to employ such legal help as it may need, and that this Association pay the necessary expense thereof.

DR. GEHRING: Mr. Chairman — May I call your attention to one thing? In June, 1910, we had a balance of \$4,019.60 in the treasury; but that year, we paid Payson & Virgin in connection with the work they did on the osteopathy bill, \$1,313.28. Since then, we have been down to the \$2,000 mark from year to year. I think that is what accounts for the apparent deficit. Also, during the past year I have paid Dr. Moulton's salary as Secretary for the year gone by, that is, the year preceding the present one, and also Dr. Thompson's bill. Ordinarily, one secretary's bill is paid each year. It just happens this year that I have paid both of these bills, Dr. Moulton not presenting his bill until along in July or August. That would make a difference of \$239.25. I may also say that two counties have not yet paid their

dues, which is against the constitution and by-laws, which provide that they shall pay their dues thirty days prior to the date of the annual meeting. Those two counties are Piscataquis and Waldo.

THE PRESIDENT: This is most cheerful news, gentlemen, so far as it relates to our finances; and the vote passed by the House of Delegates suggesting the change in the fiscal year to the first of January, it seems to me will help out in the future in the matter of more prompt payment of dues.

DR. MARSHALL: Mr. President — I would suggest that we instruct the Secretary to request from the individual county secretaries a list of the names of their delegates sufficiently early to be printed in the notice. In that way, they will see that they are delegates and what is expected of them.

THE SECRETARY: That, I think, will be taken care of when the State Secretary meets with the county secretaries. It should be, if they pay their dues promptly, in the roll that comes back to the State Secretary. The trouble has been that they have sent in their dues and roll too late, and two counties, Piscataquis and Waldo, have not sent in any roll of members at all — Piscataquis County for the reason that they do not know who are members. I have written to the Waldo County secretary twice, but have heard nothing whatsoever from him. Piscataquis County sent in their roll last year a month after the meeting here. I saw one of the members from that county, Dr. Marsh, and explained the matter to him; and he said he would have the matter remedied in Piscataquis County so that they would at least get in their roll of members according to the constitution. It should be in thirty days before the annual meeting. If that is done, the delegates will be put on this list.

THE PRESIDENT: Gentlemen — There is one important matter of business to come before the House. Dr. Campbell, I think, has a motion to make.

DR. CAMPBELL: Mr. President — As I understand it, the House of Delegates has to decide the place of next meeting. There has been some talk among some of the members that they would like to go to Poland Springs next year. I understand that the management of the Poland Spring House say that they will be glad to have us, and that they will give us reasonable rates. Dr. Hill has talked with the management, and, if it is your wish, he will be glad to tell you the conversation.

DR. HILL: Gentlemen — I happened to run across Mr. Ricker at the depot as I was going home last night, and I told him that there had been some talk among the members that it would be a good idea

for us to go to Poland Springs for a meeting soon, and I asked him if it would be agreeable to their management if we should vote to go there. He said they would like it very much indeed, and that they would give us good entertainment. I asked him if the prices would be prohibitive, and he said they would not. He said the doctors were the best friends they had up there, and they would be glad to do anything they could for them. I have no doubt that there are those here who are familiar enough with the Rickers to know that this would be substantiated in every way, because doctors are always welcome at their place, and we would be doubly welcome should we vote to go there. For myself, I thought this would come up in the main body, and I was surprised when I found it was acted on by your own membership. I have seen quite a number of the members, and I have yet to find one who would not be very glad to go there if you so vote.

On motion, duly seconded, it was unanimously voted to hold the next meeting of this Association at Poland Springs.

THE PRESIDENT: Shall the time be set?

DR. GILBERT: The time has been the second Tuesday and Wednesday of June for several years. It was changed for the Bar Harbor session and nearly every year since, until this year.

Voted to adjourn.

J. B. THOMPSON, *Secretary*.

Cause of Mons. Calmette, the Celebrated Parisian Politician and Newspaper Editor.

It would seem from a postmortem examination made in the case of the recent death of Mons. Calmette that he died from rupture of the external iliac artery following a bullet wound at the hand of Mme. Caillart. Immediately after the injury, a blood clot filled the aperture in the artery and if it had been ligated at once, the probabilities are that the injured man would have recovered. Immediately after the shot, the office of the lamented editor was converted into an aseptic operating room, by the eager and zealous hands of first-aid ambulance men, the clothes were cut off by a capable physician, and hemorrhage was largely stopped by rubber bandages properly placed. There and then, was the chance to operate, but as so often happens in the case of prominent personages, delays took place and differences in regard to the choice of the operating surgeon ensued. When they were finally settled, many hours later, the hemorrhage had set in again and the loss of blood was so extensive that the ligation of the injured artery was of no avail. It is curious to note the world over, the timidity of surgeons in the presence of any injury to some exalted personage. If they would only do as Napoleon ordered to an embarrassed obstetrician when in attendance on the Empress Marie Louise, in child bed, treat my wife, just as you would treat the wife of a corporal of my body guard, important lives might be saved in emergencies.

JOURNAL OF MAINE MEDICAL ASSOCIATION

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Editorial Comment.

The Transactions of the Association and of the House of Delegates at the Meeting in June.

We print in the current issue of the Journal a full report of the proceedings of the meetings of the Association and of the House of Delegates for the year. Important matters are constantly brought forward at these meetings for the benefit of the profession and of the State. Whoever will take the trouble to read the proceedings will find as always, food for thought. For it is the only chance, year by year, when the members can come together and express their opinions concerning the occurrences of the past year and offer new suggestions for the year to come.

The discussions of the members of the Association speak for themselves and need no special mention at our hands on this occasion. The members of the House of Delegates, however, thrashed out much material offered for discussion and made some progress in various directions. The most important suggestion which we have to make concerning these discussions is that it is a bitter pill that at every session of the legislature of Maine, we as a profession should be compelled to hire either a special medical agent, or an attorney to protect our interests, personally, as well as to prevent our suggestions for progress and the benefit of humanity from being grievously hampered by unwise legislation. The health of Maine depends on our profession, and upon the way in which we do our work, and when we are hampered in that, by men who know nothing at all of medicine, it is not we alone who suffer, but additional suffering and hardship accrue to every sick person in the State. It should be the duty, we maintain, of those who are high in authority to inform themselves of the legislation likely to be brought forward against the health of the State, as a whole, and to inform us as a profession, so that we may come

forward with suggestions for good, instead of compelling us to pay out of our small incomes agents to be on the watch against unwise legislation.

Look at the Drug Law as passed at the last legislature and ask for some explanation of its exact meaning, and such, you cannot get. Is it or is it not a misdemeanor to instil a few drops of cocain solution preparatory to a nasal operation, without recording the exact amount used? Is it, or is it not, legal to use a solution of cocain in the eye without recording in a book, such use? Can a physician legally or illegally use a narcotic from a hypodermic syringe for the reduction of suffering, without making a record of each time of use?

So, too, with the matter of various sects of medical practice. Why should we be compelled year after year to appear before the legislature to oppose the legalizing of all these strange doctrines when history teaches all who can read, that all such ideas are ephemeral, that they will surely die, that they come, and pass along forgotten. Yet for all that, session after session we are forced to appear and talk common sense to committees and try to show them that rash experiments upon the people of the State should not be legalized.

Society News and Notes.

American Roentgen Ray Society.

"The American Roentgen Ray Society will meet in Cleveland at the Hotel Hollenden on September 9th to 12th inclusive, 1914. The program promises to be of unusual interest and value, and includes a paper by Dessauer of Frankfort, on the subject of artificial production of gamma rays; Coolidge, the inventor of the Coolidge tube, Shearer and Duanne will also read papers. The subject of deep therapy and the production of the hard rays will be fully presented and discussed. The rest of the program will be taken up by a large number of papers on general subjects. The medical profession is cordially invited to attend these meetings."

County News.

AROOSTOOK.

The Aroostook County Medical Society held its annual meeting at Houlton, June 23.

The following officers were elected for the ensuing year:—A. J. Fulton, Blaine, President; F. W. Mitchell, Houlton, Vice-President; W. G. Chamberlain, Ft. Fairfield, Secretary; F. O. Hill, Monticello, Treasurer.

The following program was carried out:—President's address, T. S. Dickison, Houlton; "Conduct of Normal Labor," P. E. Gilbert, Ashland; "Pellagra," H. L. Bartlett, Norway.

Joseph H. Donavan of Houlton was received into membership.

W. G. CHAMBERLAIN, *County Editor.*

A special meeting of the Knox County Medical Association was held on July 28, at the Crescent Beach Hotel, South Thomaston. Dr. Ed. Reynolds of Boston gave a talk on "Cancer: its early diagnosis and treatment." H. W. FROHOCK, *County Editor*.

PERSONAL NEWS AND NOTES.

A large number of Washington County physicians visited the Canadian Medical Association at St. John this week. The session throughout was very interesting and appreciated by the three or four hundred doctors present. Among those from the St. Croix were Drs. Deinstadt, Lawson, Laughlin and Gray from St. Stephen. Drs. Taylor and Alexander from St. George. Drs. Webber, Holland and Miner from Calais and Murhpy from Eastport.

Recent doctors visiting Calais and calling upon patients of theirs at the hospital were Dr. Johnson of Vanceboro, Dr. Crane of Dennysville, Dr. Johnson of Princeton, Drs. Dyas and Brooks of Eastport and Dr. Murray of Deer Island.

of Boston was present and gave a very interesting talk. Dr. Painter of Boston was present and gave us a very interesting talk. Dr. Painter has many friends on the river who enjoy his handling of orthopedic subjects and wish that he might more often visit here.

Drs. H. T. Clough, W. L. Hunt, D. A. Robinson, of Bangor and F. Y. Gilbert of Portland are in attendance at the Clinical Congress of Surgeons in London.

Book Reviews.

The Life and Letters of Nathan Smith, M.B., M.D.

By Mrs. Emily A. Smith, with an introduction by Dr. William H. Welch, Yale University Press. New Haven, Connecticut. Price \$2.40.

A letter of the year 1800 now lying open before us says: "I do not believe that Dr. Smith is a universal genius, but I think that he comes the nearest to being it of any man that I ever met." Taking this as a text, we can say, that after studying carefully the era in which Nathan Smith practiced and taught, and after comparing him with contemporary physicians, we agree with the writer of this time-stained letter.

For many years, we have been looking for a proper life of this great physician, and at last there lies before us for a few words of friendly comment and congratulatory praise, a properly proportioned, though all too brief, account of the career of this exceptional man. Yale has never more fitly celebrated any of her centennials, or more highly honored herself, than in the publication of the life of a man who a century ago established within her walls a school for instruction in medicine.

This book now tells us how Dr. Smith settled in Cornish, New Hampshire, soon obtained a good practice and several students, and

then amidst many difficulties founded the medical school at Dartmouth in 1797. He not only worked there, practically alone, for several years, but he worked amidst discouraging surroundings. His means for obtaining drugs, apparatus, anatomical plates, and subjects for dissection, books and instruments, were, personally small, and Dartmouth was poor. When we recall for instance, the fact of the trustees giving their own notes for the small sum of \$81 in payment of chemical apparatus, because the college treasurer did not have that sum available, and remember Dr. Smith's salary of \$200 a year, we can partially measure the financial difficulties under which Dr. Smith labored.

As time went on, he met with further obstacles in the petty tyranny of New Hampshire politicians and interference from the sheriff regarding alleged body-stealing. These troubles steadily increased, and in spite of the testimony to his ability as a teacher in the professional skill displayed by his pupils, he finally decided to abandon Dartmouth, and in 1813, he established his second medical school at Yale, where anatomy had a better chance and money was more abundant. There he continued until his death in 1829, but additionally in 1820, he established his third school of medicine, the Medical School of Maine in connection with Bowdoin College, and in 1822 took an active share in the lectures at the newly established medical school at the University of Vermont. Nathan Smith, therefore, as it were founded and put into working order four schools of medicine, from which many distinguished physicians were graduated. His scholars and his own children by the brilliant successes in medicine, proved the wonderful and the unique services of Dr. Nathan Smith to American medicine.

As if this were not enough to mark him as a miracle in medicine and surgery, we can say of him alone, that he practiced medicine and surgery successfully in every State in New England; not from motor cars, nor by the aid of the electric wire, but from horseback or by stage coach on the worst of roads and by slow delivery of letters. He saw and advised patients in almost every considerable settlement in New England, from Eastport, Maine, to New York City itself.

These facts stated in interesting fashion are presented to us in the pages of this book, with its valuable introduction by Dr. Welch. Interspersed, additionally, are letters from students and friends, notes of operations performed, family portraits, fac-similes of case-books and lists of students, and as a frontispiece, a speaking likeness of Dr. Smith from the brush of Samuel Franklin Breese Morse; more famous to us now, as a telegrapher than as a portrait painter, but whose portraits hanging to this day in old New England mansions

testify to the cunning of his hand as a draughtsman and colorist.

Mrs. Smith also gives us a very animated account of Dr. Nathan Smith's very talented medical sons and grandsons, exhibiting in this way most vividly the hereditary genius for medicine attached to the descendants of Nathan Smith; himself an extraordinary man.

We commend most heartily, this life, for it is a worthy presentation of the active career of a remarkable man. It is well composed, and carries the reader along pleasantly, happy in the knowledge that at last we have some satisfactory picture of one of whom history speaks much but without sufficient detail or depiction of characteristics.

We shall hope in another edition, to find notice taken of other items which throw additional light on Dr. Smith's personality. Mention, we mean, could be made of his remarkable open letter in the case of the alleged poisoning affair of Mrs. Margery Fay at Alstead, New Hampshire; some account should be discovered and inserted of the murder case in which he testified at Portland, Maine, in 1823; finally, his connection as an expert with the long continued and very famous malpractice case of Lowell vs. Faxon and Hawkes (1820 - 1826) should be copiously utilized. For, upon his testimony the medical reputation of these two physicians hung, and what he said in their favor went far to obtain for them a verdict from the jury.

A Synopsis of Medical Treatment.

By George C. Shattuck, M. D. W. M. Leonard, Publishers.

This work, according to the preface of the author, represents an attempt on his part to offer clearly and concisely sound principles of treatment based on known pathology. It embodies many of the principles emphasized by Prof. F. C. Shattuck and Dr. W. H. Smith, carried out at the Massachusetts General Hospital and used largely in teaching students in the Harvard Medical School.

Works in medicine in this era of specialism have become so ponderous that the student of medicine and the busy practitioner, as well, longs for some short cut which will enable him to get at the essentials of the various subjects treated.

The medical student, bewildered by the complexity of the problems confronting him, finds in a work of this kind a digest of the essentials and the book is so arranged as to give a blank leaf for added notations as important points are brought to his attention. Books of this type are freely used in the clinics of the large European universities and, while severally arraigned, by some of the masters, it is astonishing how much useful information may be so concentrated. These literary alkaloids appear to serve a very useful purpose.

H. E. M.

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SEPT., 1914.

No. 2

***PRESIDENT'S ADDRESS.**

By T. L. DICKINSON, M. D., HOULTON, ME.

We are being confronted with the problem of the changing position of the physician relative to the general social body.

The physician of fifty years ago stood in an entirely different light before the public. He was rarely consulted in social affairs in a public way, although he acted as general council to each individual; in public affairs he was rarely heard from. It was his duty to relieve suffering as best he could with the means at hand.

No one said to him "Can I do a certain thing?" but they said to him—"I have done a certain thing and now I wish you either to remove or temper the consequences." Today we are being asked, "How can I avoid certain consequences and what shall I do or leave undone in order to keep well?"

These changes have been brought about largely by the physician himself and by education.

It has been said that the physician is sawing off the branch on which he stands, and it is true, but as he does so he does not fall but reaches for the next branch above and therefore stands one branch higher. We have trimmed off one branch after another, such as:—yellow fever, smallpox, malaria, diphtheria and typhoid fever, and soon must go our old friend rheumatism.

We have discovered that rheumatism has no identity as a disease *per se*, but is always a signal of some other disease or abnormal condition. We are aware that gonorrhœal rheumatism follows the specific infection in about twenty-one days.

*Read before the annual meeting of the Aroostook Medical Society, June 23, 1914.

The infection of influenza and grippe occurs in the joints in about fourteen days. The streptococcic infections get into the joints in three or four days. The staphylococcus or feruncular type in nine to eleven days. Infections of the hand or foot other than streptococcic show joint metastases about the tenth day. Pneumonic metastases occurs in the joint from ten to sixteen days or about the period of lysis.

In contrast we have the late infections which may occur as late as twenty to thirty years after specific cases and in typhoid from four to eight weeks, or about the time the ulcers are healing. And so we have come to the time when rheumatism no longer diagnoses the disease and the word will gradually be expunged from our vocabulary and metastatic arthritis qualified with the specific infection, if possible, substituted.

Now, we have had to acknowledge that we have failed to cure rheumatism. But, we must busy ourselves to prevent it and so saw off another branch. The temptation is strong here to read a paper on the prevention of rheumatism, but that is not my present purpose. But, that the disease that has tormented our patients and us for so many years, can and will be very largely prevented in the immediate future, there is not a particle of doubt.

Prevention then of all diseases that are preventable is an urgent duty and additions to the list of preventable diseases are being made from time to time. What then can we do to further the cause of prevention of disease? First, of course, we must teach ourselves and each other by such conferences as this meeting and try to keep abreast of the current thought, which we all do. Having then this technical knowledge in our possession, in what ways should it be used? Some of these ways are familiar to us all, such as: the hygienic measures to prevent fly born and filth diseases; the isolation of all infectious diseases; the care and after treatment of infections to prevent metastases; the care and treatment of nose and throat infections; vaccination for smallpox; vaccine for typhoid; antitoxin for diphtheria. All these are familiar and should be carried out faithfully. But you say we have been doing all this for years. Yes, these things we have and should have done and yet not leave some others undone.

The physician is about to take his place among the leading teachers and leaders of thought in the community in which he lives.

Largely, the public have been taught in health matters through the public press, but the time is at hand when the physician will be consulted more and more, and he should prepare himself to be consulted on matters pertaining to health and prevention of disease of various kinds called social diseases.

During the recent meeting of the Maine Medical Society, Dr. Cabot read a paper on social work, and, in the course of his remarks, said that, while the city physician made the best diagnosis, the country physician did better work in treatment, due, he claimed, to the fact that the county physician was more in touch with his patient and his surroundings. So, while the city physician is making strenuous efforts to catch up on this point, let us busy ourselves that he does not overtake and pass us in our own specialty.

In the fight against the specific diseases the profession has taken the lead and is doing good work through publicity and education; but is the individual physician doing his full duty to his individual patient and their families? How many of us, on being called upon to treat a specific case, take any trouble to inform the patient or the family of the grave danger to the wife or children or others? How many wives have been made invalids or children made blind, deaf, or imbeciles through our indifference or diffidence in the matter?

Take, for instance, a case of lead poisoning coming under our care; it is not enough that we cure the individual case and inform him how to avoid it in the future, it is our duty to inform ourselves of the source of poisoning and who may be exposed to the same source of danger and either have the trouble removed or warn those who will be exposed to such danger in future.

In case of eye-strain coming to our notice, it is not enough that we fit the patient with glasses, we should find the cause and what other children are exposed to the same danger and inform the parents, teachers or guardians of such danger, whether it be due to bad light, too great a distance from eye to object or whether it be disease.

It is not enough that we give the man with a lame back some liniment or a plaster, we must find the cause for him. Is it disease or is it a strain, and what causes the strain.

I am firmly convinced that we can find the cause of nine-tenths of all the cases of lame back if we try to look for them. Certain ailments are peculiar to certain occupations, then they must be due to some particular cause either in the surroundings or to some position the worker assumes.

But aside from the practice of medicine, as we see it in the office, it is incumbent on the up-to-date physician to contribute his share in general educational work. He should contribute of his knowledge toward the general good. It is within his province to inform the parents regarding their children, to the end not only that they are well nourished and fed properly, free from disease, breathing unobstructed, with hearing and sight good, but that they have plenty of fresh air and plenty of time to play, are not rushed in their mental work, and are not sent to school too young.

I firmly believe that a child started in school at ten can learn as much in the next ten years as one started at five can learn in fifteen years. Think of the mental labor of a child of five learning the alphabet, yet how long would it take a child of ten? Children will acquire knowledge without going to school; they are naturally inquisitive and it is only necessary that they have the proper surroundings in order to inspire their inquisitiveness in the right direction.

I believe more attention should be paid to their growth and health during the first ten years and less to education and we would have a great deal less tuberculosis between the ages of sixteen and twenty-two, less eye-strain and less deformities. But I do not mean that children under ten should be neglected, not by any manner of means, for this is the age of first impression and they learn very rapidly what is going on around them.

Most boys of this age can tell you the name of the best trout brook or the best kind of a baseball or the name of his favorite Indian chief. Suppose, for example, a teacher should say, "Tomorrow at ten we will play a game of base-ball or go to the nearest trout brook or we will build a snow fort," how many do you think would be absent or late; and suppose he should say that the one that could tell him the most about the State in which he lived would be the pitcher or captain. Don't you think the parents would have to answer a few questions the night before? And, after all, is not the child's mind as well trained by training his eye and head, as by reading from a book?

It seems to me that training the mind rather than acquiring facts is the principal object. How many of us remember the facts we learned at school? I pride myself on being somewhat of a mathematician, and yet I could not undertake to extract a cube root without an arithmetic to refresh my memory.

I learned the counties by heart but I could not repeat them now. I look in the year-book when I want them. Therefore, I claim that the training is all we get at school; we learn in after years from books what we want when we want it and learn it easily and quickly. It then seems possible to train the mind, the eye, the hand and the memory without confining a child under ten or twelve in a modern prison, for that is what it is to them, for six long tedious hours of beautiful sunlight and play and physical development, for five days out of each week. This sounds revolutionary and it is. But is it right? If so, let us labor for it, if not, let us study the matter until we find what is right and then act upon it.

I believe our system of child education is wrong and I believe the physicians are the ones that will set it right. In the matter of feeding children also, we shall come in time to know that a child should

eat, sleep and play as he wishes, and he will eat most of the time when not asleep, and should eat when and what he wants.

The method of conducting sports in school is also wrong. In base-ball or foot-ball the boys are picked out according to their ability and aptitude for the game and formed into a team and this team gets the training. Rather should each child be taught in his turn to play the game, which I believe would accomplish the double purpose of physical as well as mental development. After all, what is mental development and training? Does it not consist in teaching the brain to respond to stimulus from the eye and ear and to control the muscles and in the quickest possible time; in other words, nerve conduction of impressions from eye or ear to the brain and thence to the muscles? The eye can be taught to judge distances and thus develop the so-called judgment and quick grasping of rapidly moving events and actions. It seems necessary, of course, that some facts should be memorized, not only for the training but for their intrinsic value. But let it be useful things of life and not stale facts and dates of ancient history. That should be reserved for later years. I have spent many weary hours memorizing the dates and kings of English and American history. I do not remember now more than two or three and the time was wasted that should have been spent in acquiring useful facts such as modern languages for the professional man, things appertaining to commerce for the business man. But this comes in later years and we are more concerned with the earlier periods. And you all know from personal experience how little any of us remember in spite of the bluff we made. When we want anything we look for it in a book, and I doubt if any of us can give ten important dates in the world's history to save his reputation. I have no difficulty in remembering the things of every day life, and the people that interested me.

There is another field of usefulness in which the physician should make himself known. In the past, he has been a silent partner in social and municipal affairs except in rather rare instances, and even in such exceptions he has taken it up rather as a pastime. It should be part of the duties of every physician to take an interest in municipal and political affairs, and make his influence felt. This surely is a field in which there is much need of prevention and even some fumigation.

The needs of a social community should be studied, discussed and taught to the public, for it is more than willing to be taught but does not like to be driven.

A story is told of a certain community that had a steep precipice on the edge of the town over which people were continually falling and being hurt or killed. A conference was held to discuss what should

be done, one person suggested building a fence at the top, but the majority favored buying an ambulance to relieve the fallen. Of what use is our fight year after year to prevent sickness and intestinal diseases among children if we allow them to drink milk containing tubercular bacilli, or eat meat infected with hog cholera and such like diseases? These things can be prevented only by educating the people to a knowledge of the true condition and they will demand laws to prevent these things.

The physicians are the proper leaders in this direction. Of what use is it to treat one case of tuberculosis in a family when you are well aware that within a few years, two-thirds of the family will have the same disease? How much better it would be to isolate the first case in a sanatorium for treatment if curable, in an isolation home if incurable.

We have no such places available, but why should we not have them? I believe that every county should have a place for treating these cases and a home for the incurable cases, and it is a part of our own work to see that we get them. We should interest ourselves in the hospital reform movement, to the end, that State funds be used only for charity purposes, and funds be forthcoming to maintain a home for incurable tubercular cases, in each county. According to United States census reports, we are spending in proportion, education, \$4.89; police, \$2.15; roads, \$2.01; government, \$1.95; fire, \$1.65; charities, \$1.08; recreation, \$.59; health, \$.35. The proportion of health to roads is 1 to 6, but in this State it is nearer 1 to 20, and even then the money is badly handled and is used for the benefit of people who are well able to care for themselves, while the deserving cases still suffer.

Let us join hands with whatever forces may be useful and see if we cannot educate the public to a sense of the need of an isolation hospital for the care of tubercular cases, which could be run in connection with a sanatorium to avoid the odium of being a hospital for incurables. A physician can create almost any sentiment he wishes among his patients.

Therefore it is only necessary for all the physicians to agree among themselves as to what they want, then each go to his patients and talk it to them, and in a short time sentiment will be all one way, and, when the physicians are agreed on anything, they wield the most powerful influence of any element in a given community.

***THE AIR WE BREATHE.**

BY THOMAS HUBBARD, M. D., TOLEDO.

During the period 1825 to 1875 the standard of temperature of dwellings and public places was gradually increased from 55 degrees F. to 72 degrees F. There was no attempt at corresponding increase of humidity. Fifty-five degrees with natural ventilation implies about 40 degrees relative humidity; 72 degrees F. gives a natural humidity of 20 per cent or lower. From the health point of view the 20 per cent decrease in humidity is more important than the 15 degrees rise of temperature.

Catarrhal and acute infections are more prevalent during the cold months to a degree not creditable. Abnormal dryness of the air of our habitation is a factor worthy the attention of hygienists. Dry air is a dust laden air—and an infection disseminator. Moist air causes precipitation of dust content, and a proper humidity lessens dangers of air borne infections.

The caloric shock of sudden change from 70 degrees and 20 per cent relative humidity to outdoor air 30 degrees, 80 per cent relative humidity (average winter condition), causes chronic congestion and inflammatory reaction in air passages. Chronic pathologic changes in mucosa and turbinates follow. Unhealthful atmosphere of our habitations is the ever present etiologic factor in winter catarrh.

The difficulty of humidification lies in the high temperature standard. Almost impossible to moisten air up to 50 per cent relative humidity and at the same time ventilate. Problem simplified at 65 degrees with 40 per cent relative humidity. Sixty-five degrees F. with 40 per cent relative humidity feels as comfortable as 72 degrees F. with minus 20 per cent relative humidity. Sixty-five degrees F. is the "critical point" in heating air. Fuel cost increases very rapidly above that. There is a positive natural resistance above 65 degrees. To heat air from 60 degrees F. to 70 degrees F. costs as much in fuel as to heat it from 20 degrees F. to 60 degrees F.

Sixty-five degrees F. is the natural temperature standard for habitations. In so far as we are habituated to a temperature above that, we are that much hypersensitized to temperature, and consequently more subject to caloric shock—and further, health and economy unite in demanding a revision of heat standard downward, in order that a healthful humidity standard, 40 to 50 per cent, may be made practical.

*Address of President from the scientific proceedings of the thirty-sixth annual Congress of the American Laryngological Association, held in Atlantic City, N. J., May 25 - 27, 1914.

Ventilation is important, but there is such a thing as too much ventilation. When air of dessicating, unhealthful quality is introduced in volume sufficient to change the air of a building two to four times an hour (the minimum rate to get proper distribution of heat), it is virtually a dry kiln effect, and the more rapid the change the lower the humidity. For example: Furnace heated school rooms are gradually brought down to considerably below 20 degrees relative humidity (14 per cent in one test), and no amount of so-called "fresh air" without artificial addition of moisture can offset the deleterious effect of the abnormal dryness.

The average winter relative humidity of the North Atlantic and Middle States is near 80 per cent. This condition makes it all the more important that we give special attention to "conditioning" the air we breathe up to a tonic healthful degree of humidity.

Engineers and architects are prepared to meet any reasonable demand and it is our duty to aid in educating toward establishing proper heat and humidity standards.

DISCUSSION.

DR. JOSEPH H. BRYAN, Washington: Physicians postpone taking up this very interesting subject, contenting themselves with treating the pathologic conditions that take place in the upper air passages resulting from vitiated air, rather than to educate their patients how to live in an atmosphere that is not only comfortable but healthful.

I agree with Dr. Hubbard as regards the temperature of our living rooms; 65 degrees seems to me the maximum—anything above that increases the sensitiveness of the individual. It is a notorious fact that we in America indulge in too much heat in our homes. The only other nation that lives in such hot houses is the Russian. Foreigners coming to this country to live for the first time almost universally complain of the great heat of our houses. Humidity and temperature are so intimately connected that they cannot be considered separately. As Dr. Hubbard says, a temperature of 65 degrees with a humidity of 40 degrees will be as comfortable as a temperature of 72 degrees with a humidity of 20 per cent. These are simply opinions, and must be verified by more extensive observations before they can be accepted as a standard for the sanitary engineers to go upon in supplying our homes and public halls with the proper atmosphere.

How are we to arrive at the proper conditioning of the air we breathe so as to produce an atmosphere that is conducive to health? It can only be done by the medical profession joining forces with the sanitary engineer. The engineer is prepared by the many devices at his command to produce any kind of air that is desired. He, however, has not been able to bring about the desired results because there is no uniformity of opinion in the medical profession as to what kind of air is the best for the health of the individual. We have been too slow to take up and investigate this most important subject. When this is done and a uniform opinion formed, there then remains for us the all important duty of educating our patients how to live in a healthful atmosphere.

DR. JOHN F. BARNHILL, Indianapolis: We all see this class of case, namely,

one which cannot endure a temperature below 70 degrees without great distress. These cases have been, in my practice, usually those of ethmoiditis; when they go into a lower temperature and are inactive, they will have fits of sneezing, watery discharge, discomfort, cold feet, and distress in general. For a long time when I saw that class of case, I thought possibly there was something psychic about it, and tried to dissuade them from their feeling that high temperature was the proper thing. About two years ago, I began to have the same condition myself. When I would sit in a room less than 70 degrees, I began to sneeze, had discomfort and all the symptoms which I have just related. I could not sleep in a room where the temperature was less than 65 degrees without waking in the morning with great distress. On examination by a rhinologist I found I had small polypi and a beginning ethmoiditis, and when these were cured I could again live in a lower temperature without discomfort.

DR. HENRY L. SWAIN, New Haven: I would like to put a question to Dr. Hubbard. I do not understand which method he recommended for bringing up the humidity of any given house or room to a desirable state. It must be that what he says is true, because if we are stimulating the physiologic functioning of our nasal mucosa from both outside and inside, moistening the air to our lungs, we must be making a physical stimulus sufficient to produce an hypertrophy to intensify any tendency to hypertrophy in such a nose.

DR. CHARLES W. RICHARDSON, Washington: Some years ago, I talked to the chief of the Weather Bureau, and he brought to my consideration the question of increasing the humidity and lowering the temperature as being the most comfortable for living purposes. He explained it so thoroughly and satisfactorily that ever since then I have been having my waiting room uniformly at 60 degrees with 40 per cent humidity. There is one thing in that connection I would like explained. It has been a question with me whether I should not increase the temperature a little, for I find that most of my patients, or at any rate a number of them, speak of the coldness of my hands. I feel perfectly comfortable, not at all cold. I never have any affection of the upper air tract. I think another interesting point brought out is the cry of nature against this lowered humidity and high temperature. I have always had a hobby for old furniture, and, as you know, a great deal of this is not nailed but riveted with wood and glue; and I have often noticed when our temperature was high how we could hear it crack and warp. The joints would open up. But since we have been keeping the temperature lower and the humidity higher this crackling has ceased.

DR. EMIL MAYER, New York City: I would like to ask a question of Dr. Richardson. What effect do your patients find in coming into a room kept at 60 degrees when they are not accustomed to it?

DR. RICHARDSON: Some complain about it, I must confess.

DR. THOMAS HUBBARD, Toledo (in closing): In regard to Dr. Bryan's conclusions that 40 per cent to 60 per cent relative humidity is the healthful standard, I think most engineers believe that anything above 50 per cent is impracticable, especially with regard to the question of condensation of moisture on windows and in cold weather the frosting, which must be taken into consideration. It should also be mentioned that when the occupants are undergoing physical exercise they can stand only from 45 per cent to 50 per cent; when engaged in a sedentary occupation they can stand more. The discomfort of foreigners is really due to the change in humidity, not to the temperature.

I want to emphasize the indirect system of ventilation which is largely responsible for the changes in the humidity; the colder the weather the less moisture in the atmosphere or fresh air you take into the furnace, and the more rapid the change in the air of the house the more rapid is the lowering of the standard of humidity. The modern system is a combination of direct and indirect—direct for the heat of the room, and indirect for a moderately rapid change of air or temperature of the room.

With reference to Dr. Richardson's statements, I would consider that 60 degrees is too radical a change for most of us, because we are so accustomed to 70 degrees, even with a humidity of 50 per cent. Ultimately we will regard 60 degrees as a standard to be obtained, just as now we consider 65 degrees, but at present it is too sudden a drop for most people from 70 to 60 degrees, and there would be more or less positive physical discomfort.



THE KEY TO THE SITUATION

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Editorial Comment.

Advertising.

We have called the attention of the members to changes made in our advertising pages and wish again to emphasize the urgent need of co-operation on the part of all members of the State Association. There are now 24 medical journals representing 27 States, serving their respective State associations. The Co-operative Medical Advertising Bureau of Chicago now represents all these journals but only with the understanding that they shall restrict their advertisements to articles acceptable to the Council on Pharmacy and Chemistry of the A. M. A. Our Journal is absolutely in sympathy with this stand and has cleaned up its advertising pages along the line suggested.

The Bureau has more than replaced the advertisements lost and now we find that they not only act in the capacity of agent for the State journals but act in co-operation with the prospective advertisers in blocking out their material to be used. The Uncle Sam Breakfast Food Company and Mead Johnson & Co., not only placed contracts in the State journals, but submitted all advertising proof to the Bureau for their approval, showing a desire to be absolutely square and deserving patronage from the medical profession. We have no hesitation in standing back of all our contracts and now it remains to the members of the State Association to show that the profession of Maine appreciate their co-operation. They merit your patronage and even though it is a small amount per year, collectively it is of value to the advertisers.

Also bear in mind that if we fail to produce results and show these advertisers that the Maine physicians appreciate their co-operation they will terminate their contracts, whereas the Journal cannot

afford to lose any. It not only wants to continue all it has but add more so that it can do one of two things, viz.:— Either reduce its appropriation from the State Association to as small an amount as possible or to increase the size and value of the Journal.

The governing board of the Journal have worked hard to make it a success and do not feel that they are asking too much of each individual member to assist in this small way and if you will only join hands with us the results will surely prove satisfactory to all concerned.

Look through the advertising pages each month. Place orders with these concerns. Specify their products on your prescriptions. Recommend them to your friends. Join hands with us to give the Journal a boost.

Clinical Congress of Surgeons of North America.

The fifth annual session of the Clinical Congress of North America was held in London, July 27 - Aug. 3 and found some 1,200 American surgeons in attendance.

Ample opportunity was given the visiting members to observe their English confreres at work in their own amphitheatres and to study their methods, technic and procedures. These meetings not only force one to realize that there is always considerable to learn in their respective fields but it brings them in contact with progressive surgeons of the world who proved to be wonderful students, ready to acknowledge their shortcomings and seeking avenues for improvement.

The following officers were elected: President, Dr. Charles H. Mayo, Rochester, Minn.; vice-presidents, Drs. H. A. Brice, Toronto, and Robert L. Dickinson, Brooklyn, N. Y.; secretary, Dr. Franklin H. Martin; treasurer, Dr. Allan B. Kanavel, both of Chicago and general manager, Dr. A. D. Ballou, Chicago, Ill.

Cubism in Art.

Some of our readers may have seen the much talked of exhibition of pictures of the future, or "cubism" in Boston or other cities during the past year or two. Various explanations of the imaginations of painters who could see such distortions and malformations as they have exhibited as art, have been given, but none seem satisfactory. Some one has, however, of late been looking over books devoted to the effects of hasheesh (*cannabis indica*) and discovered that eaters of this drug perceive all surrounding objects enlarged, distorted, misshapen and oftentimes of an apparently cubic appearance. He therefore suggests that cubism in art is nothing more than a pictorial representation of the visions of the hasheesh eaters.

It is a well known fact that those who have taken hasheesh, ex-

perimentally, as medical students will do, have made mention of extraordinary hallucinations of hearing, observed during the influence of the drug in question. Between each stroke of a clock striking twelve, it would seem as if hours supervened, and that the streets of a city were filled with long processions of funerals accompanied with a tolling of the bells of every clock tower in the city. If, therefore, the special sense of hearing should perceive such distorted sensations there is no reason why the sense of sight should not be similarly affected and thus bring upon the canvas, the distorted images of the cubiss.

Propaganda for Reform.

Scopolamin-Morphin Anesthesia.—McClure's Magazine for June contains a sensational account of the use of scopolamin-morphin in anesthesia as used by Kronig and Gauss at Freiburg. In America, the scopolamin-morphin anesthesia has received little attention. It is far from safe and can be carried out only in hospitals. Morphin and scopolamin should not be used in fixed proportions. (Jour. A. M. A., June 6, 1914, p. 1815 and 1829.)

Glyco-Heroin, Smith.—A report of the Council on Pharmacy and Chemistry explains that glyco-heroin, Smith, although containing one-sixteenth grain heroin to the teaspoonful, is exploited in a way to encourage self-drugging by the layman. The advertising matter suggests the administration of glyco-heroin, Smith, to children and much of it has contained the evident falsehood that this heroin mixture does not produce narcotism or habituation. The possibility of habit formation should be sufficient to induce the thoughtful physician to avoid the use of glyco-heroin, Smith. (Jour. A. M. A., June 6, 1914, p. 1826.)

Cystogen.—At a meeting of physicians recently, the question was asked: Why is cystogen, which is just plain hexamethylenamin not recognized by the Council in Pharmacy and Chemistry? The answer is simple: Because the therapeutically suggestive title as well as the method of exploitation encourages its indiscriminate and ill-advised use, both by the medical profession and the public. (Jour. Mo. State Med. Assn., June, 1914, p. 473.)

Buffalo Lithia Water.—The fallacy that diseases are due to uric acid and the fallacy that lithium would eliminate the uric acid has made mineral waters highly profitable—even when lithium was present only in infinitesimal amounts. One of the most widely used "lithia waters" was Buffalo Lithia Water, later called Buffalo Lithia Springs Water which has been declared misbranded by the federal courts because it was shown to contain less lithia than does Potomac river water and that a person would have to drink 150,000 to 225,000 gallons of the water to obtain an ordinary dose of lithia. The testimonials certifying to the high efficiency of Buffalo Lithia Water and its superiority to lithium compounds given in the past by physicians eminent in their profession, certify to the unreliability of clinical observations. (Jour. A. M. A., June 13, 1914, p. 1909.)

The Absorption of Iron.—The belief that organic compounds of iron were superior to inorganic iron salts arose before it was known that the bowel forms

the most important channel for the excretion of this element, whence the failure to find an increase in the amount of iron eliminated with the urine by means of the kidneys after ingestion of the element in some form or other was taken as an indication that it had not been absorbed. Today it is known that iron can be absorbed and excreted by the intestinal wall. Experiments have demonstrated that both inorganic and organic iron can be absorbed and satisfactorily carry out the purposes for which iron is administered. (Jour. A. M. A., June 13, 1914, p. 1913.)

Prophylaxis of Tetanus.—The following procedure is advised: Remove every particle of foreign matter from the wound. Dry the wound and treat every part with iodine or cauterize it with a 25 per cent phenol solution and apply a wet pack saturated with boric acid solution or alcohol. Inject as soon as possible, intravenously or subcutaneously, 1,500 units of antitetanic serum and repeat the injections if indications of possible tetanus arise. In no case close the wound, but allow it to heal by granulation. (Jour. A. M. A., June 20, 1914, p. 1964, and 1971.)

Beef, Wine and Coca.—This preparation, sold by Sutliff, Case & Co., Peoria, Ill., was claimed to contain about 15 per cent alcohol and one-fifth of a grain of cocaine to the fluid ounce. It was found to contain 23.75 per cent of alcohol by the federal authorities and accordingly declared misbranded by the courts. (Jour. A. M. A., June 20, 1914, p. 1981.)

Malt Nutrine.—This product of the Anheuser-Busch Brewing Association was declared misbranded by the government authorities because the label claimed that it was a highly concentrated extract of malt, which was untrue. Malt Nutrine was found to contain 1.6 per cent alcohol and extravagant therapeutic claims were made for it. (Jour. A. M. A., June 20, 1914, p. 1981.)

Robinol.—Robinol is a glycerophosphate mixture exploited by John Wyeth and brother on the discarded theory that certain diseases are due to a loss of phosphorus from the body and that this phosphorus deficiency is best remedied by administration of glycerophosphates. There is no evidence that glycerophosphates when administered act differently than do inorganic phosphorus compounds. At all events, if phosphorus deficiency really occurs, it would be more rational to supply the needed phosphorus in the form of foods rich in phosphorus such as milk and eggs. (Jour. A. M. A., July 4, 1914, p. 49.)

Sevetol.—There was a time when physiologists thought that fats were absorbed into the blood in the form of a fine emulsion. It is now known that fat enters the blood after having been split into glycerol and fatty acid, the latter being, to a large extent, combined with alkalies in the form of soaps. Making use of the discarded theory Sevetol, put out by John Wyeth & Brother, is presented to the profession with the claim that it is a very fine emulsion of fat and because of this, is readily absorbed. While Wyeth & Brother would have physicians believe that Sevetol is readily absorbed and digested, it is evident that the amount of Sevetol which can be taken is limited not only by the power of assimilation but also by the power of digestion (Jour. A. M. A., July 4, 1914, page 49.)

Tooth Detergents.—While many tooth preparations are alkaline from the soap which they contain, it is probable that weakly acid preparations are to be preferred. As the antiseptics in tooth powders and washes do not remain in the oral cavity for any length of time, they cannot exert any beneficial antiseptic action. Antiseptics may even be harmful in that their periodical application

may render the organisms which infect the mouth more hardy and vigorous. (Jour. A. M. A., July 4, 1914, p. 50).

Lithium Salts in Uric Acid Diathesis.—There is no reliable clinical evidence that Lithium salts increase the excretion of uric acid by the kidneys, except as they exert a diuretic action. Experimental work has failed to show that lithium salts or the alkalies cause the absorption of deposited urates, gouty tophi, etc. The popular belief as to the action of lithia is founded on a misinterpretation of chemical facts. There is no reason why lithium salts should be expected to favor the solution of uric acid or urates in the tissues, the blood-serum or the urine. (Jour. A. M. A., July 11, 1914, p. 184).

Wine of Cardui.—While the Chattanooga Medicine Company asserts that in the manufacture of Wine of Cardui no more alcohol is used than is necessary to preserve it, experiments indicated that the preparation contains only water-soluble constituents and that a non-alcoholic preparation might easily be prepared. Also, despite the owner's assertion that Wine of Cardui cannot be used as a tipple, large doses were taken experimentally with no observable effects other than those of alcohol; further, letters from physicians assert that the preparation is used habitually, evidently for its alcohol effects—probably unconsciously. The exploitation of Wine of Cardui is vicious and the public should be apprised of the facts. (Jour. A. M. A., July 18, 1914, p. 258).

Strychnin and Caffein in Cardiovascular Disturbances.—Aided by a grant from the Council on Pharmacy and Chemistry, Dr. L. H. Newburgh has made a painstaking study of the action of strychnin and caffein on cardiovascular disturbances. He concludes that, since the blood-pressure is not low either in persons showing grave symptoms of pneumonia or of those dying from that disease, and since it has been proved that the vasomotor arcs are normal in animals after death from pneumonia, it is logical to conclude that the vasomotor mechanism is not impaired in pneumonia. Strychnin does not improve or augment the work of the heart in persons suffering from broken cardiac compensation. It could not be shown that either strychnin or caffein stimulated the cardiovascular apparatus in any of the conditions studied. (Jour. A. M. A., July 25, 1914, p. 311).

Vaccine and Serum in Hay Fever.—A serum for the treatment of hay fever is described in New and Non-official Remedies. Theoretically there can be no vaccine treatment of this disease for the reason that it is produced, not by bacteria, but by the pollen of various plants. The use of vaccines derived from the micro-organisms found in the nasal secretions are still in the experimental stage. (Jour. A. M. A., July 25, 1914, p. 340).

Buckhorn Lithia Water.—This water was declared misbranded by the federal authorities because false curative claims were made for it and because it did not contain enough lithia to be entitled to its name. (Jour. A. M. A., June 20, 1914, p. 1981).

Sun-Ray Sparkling Water.—While represented to be "the world's purest water," it was water to which sodium chloride, sodium bicarbonate and carbon dioxide had been added. Accordingly the company which sold the water was found guilty of misbranding under the Food and Drugs Act. (Jour. A. M. A., June 20, 1914, p. 1981).

Hiccura Mineral Water.—This was declared misbranded because it was not a natural mineral water as claimed. (Jour. A. M. A., June 20, 1914, p. 1981).

Raymond's Pectoral Plasters.—These are exploited untruthfully as "posi-

tive cures" for whooping cough, bronchitis, etc. (Jour. A. M. A., June 20, 1914, p. 1982).

Liquid Albolene.—This is a light variety of liquid petrolatum marketed as a proprietary medicine, exploited in an objectionable manner and with more or less misleading claims. It is said to come from Russia and differs from American products in being entirely non-fluorescent—an immaterial difference. (Jour. A. M. A., June 27, 1914, p. 2048).

New and Non-Official Remedies.

Since publication of New and Non-official Remedies, 1914, the following articles have been accepted for inclusion with "N. N. R." During the current month no articles have been accepted by the Council on Pharmacy and Chemistry:

H. M. Alexander & Co.:

Normal Horse Serum; Typhoid Vaccine, Immunizing.

Antiseptic Supply Co.:

Causticks; Caustick Applicators; Cupricsticks; Stypsticks; Stypstick Applicators, Alum 75%.

Arlington Chemical Co.:

Arleo Urease.

Comar and Cie:

Electrargol; Electrargol for Injections 10 Cc, Ampoules.

Farbwerke Hoechst Co.:

Amphotropin; Erepton.

Fairchild Bros. and Foster:

Trypsin.

Franco-American Ferment Co.:

Lactobacilline Tablets; Lactobacilline Liquide, Culture A; Lactobacilline Liquide, Culture D; Lactobacilline Liquide, Infant Culture; Lactobacilline Glycogene Tablets; Lactobacilline Glycogene Liquide; Lactobacilline Milk Tablets; Lactobacilline Milk Ferment; Lactobacilline Suspension.

Hoffman-LaRoche Chemical Works:

Thicol; Syrup Thicol, Roche; Thicol Tablets.

Hynson, Westcott & Co.:

Phenolsulphonephthalein, H. W. & Co.; Phenol; Sulphonephthalein Ampules, H. W. & Co.; Urease-Dunning.

Merck & Co.:

Cerolin.

H. K. Mulford Co.:

Acne Serobacterin; Anti-Anthrax Serum, Mulford; Antistrep-

tococcus Serum, Scarlatina, Mulford; Coli Serobacterin; Culture of Bulgarian Bacillus, Mulford; Disinfectant Krelos, Mulford; Neisser Serabacterin; Pneumo Serobacterin; Salicylos; Scarlatina Strepto Serobacterin; Staphylo-Serobacterin; Staphylo Acne Serobacterin; Strepto Serobacterin; Typho Serobacterin.

Riedel & Co.:

New Bornyval.

Reinschild Chemical Co.:

Phenolphthalein Agar.

E. R. Squibb & Sons:

Sodium Biphosphate, Squibb; Tetanus Antitoxin, Squibb; Tetanus Antitoxin, Squibb, 5,000 units.

Hoffman-LaRoche Chemical Works: Digalen:

The Council has voted that the acceptance of Digalen and Digalen Tablets be rescinded and that these products be omitted from New and Non-official Remedies. A report explaining this action has been authorized for publication.

Abstracts of Current Literature.

(Surgery, Gynecology and Obstetrics, November, 1913.)

Incompetency of Ileocaecal Valve.

By John H. Kellogg, Med. Rec., June 21, 1913.

The ileocaecal valve is not only a mechanical structure but a true sphincter and its integrity is essential to health. It "acts in a manner very similar to that of the pylorus: retaining the foodstuff in the small intestine until the digestive work of the midgut is complete and the digested foodstuffs have been absorbed." Another function is to pass unusable food residues into the cæcum in small amounts, thus giving the larger bowel time for absorption of water, the material passing the ileocæcal valve being 9/10ths water. The ileocæcal valve prevents the reflex of material in spite of strong antiperistaltic waves in the colon. "At intervals these antiperistaltic waves cease momentarily while the ileocæcal valve relaxes and small portions of material are passed into the cæcum from the small intestine." The integrity of the valve is essential for normal digestive processes.

The causes of incompetency of the valve are usually the stretching or breaking of the habenula and the obliteration of the normal intussusception. The habenula is a continuation of one of the longitudinal bundles of muscle fibers of the colon and passes behind the valve, puckering the cæcum around it. Overdistention of the colon is

probably the cause of the rupture of this band, although considerable distortion of the valve may occur after inflammatory processes in this region.

Incompetency of the ileocæcal valve is not uncommon. Case found it in 33 of the 200 patients examined. The results are: "1. In complete incompetency of the ileocæcal valve, the passage of a large amount of undigested material from the small intestine may cause irritation and diarrhea.

2. When the contents of the small intestine pass rapidly into the colon instead of being introduced in small successive quantities, the colon is overdistended, stasis occurs, putrefactive processes are encouraged, colitis, pericolitis, or appendicitis may result and conditions are produced which prepare the way for the development of tuberculosis or cancer. When the valve is incompetent, the contents of cæcum, instead of being churned and mixed, are forced back into the small intestine. Thus we have feral stasis in the cæcum and terminal ileum with consequent absorption.

3. The drag of the accumulated material on the mesentery produces obstruction at the duodeno-jejunal junction and hence gastric and duodenal stasis and predisposition to diseases of stomach, duodenum, pancreas and bile passages.

4. Incompetency of the ileocæcal valve and resulting stasis and irritation are often the cause of appendicitis and other inflammatory processes in this region.

5. When the ileocæcal valve is incompetent the bowel is practically unable to deal with gaseous material.

6. Constipation is another consequence of incompetency of the valve.

7. In these cases, we find the highest degrees of intestinal intoxication."

Palliative treatment consists chiefly in securing at least three bowel movements daily by use of a bulky laxative diet, probably agar-agar or paraffine oil. Diminish amount of protein taken to actual needs of body and increase carbohydrates. Change of the intestinal flora by administration of lactic acid, bacilli, etc., may be indicated.

The operative treatment consists merely in suturing the ruptured habenula and in reproducing the normal intussusception of the terminal ileum into the colon. The author has "never thought it proper to open the abdomen for the purpose of repairing an incompetent ileocæcal valve, for the reason that the evils arising from this condition can be so efficiently and satisfactorily combated" by medical means.

C. M. ROBINSON.

Intestinal Obstruction.

In the February issue of *The Journal of Experimental Medicine*, Whipple, Stone and Bernheim give further data upon their studies on Intestinal Obstruction.

In previous papers they pointed out the value of a closed loop in this study. The loop employed was produced by a long ligature below the pancreatic duct and again beyond the duodenojejunal junction combined with a posterior gastro-enterostomy. The resulting intoxication must result from bacterial growth and epithelial activity, as other factors had been side tracked.

Their experiments show that dogs with a closed loop die in about two days from an acute intoxication, "and further that a substance can be isolated from the closed loop, which, if injected into a normal dog, will cause similar but more intense signs of intoxication."

"The picture is one of severe and fatal shock, — low blood pressure and temperature, vomiting and diarrhea with extreme splanchnic congestion."

Smaller injections of this substance caused a seeming immunity in normal dogs.

Then follow a number of interesting experiments. They conclude that the toxic substance is secreted from the intestinal mucous membrane, and that this substance is practically the same in intestinal obstruction in cats, dogs and humans.

Their conclusions are: "Dogs may be immunized against lethal doses of the duodenal loop poison by means of small doses of the loop fluid from dog or cat and by material obtained from human cases of intestinal obstruction."

"Dogs immunized show a definite resistance against the intoxication of a closed duodenal loop."

"Intoxication is evident in drained duodenal loop whether it opens externally or into the jejunum and may be associated with more or less immunity which can be demonstrated after a period of days."

"Intoxication with a closed duodenal loop is identical whether the loop is left empty at operation or filled with a lethal dose of loop fluid. This again emphasizes the fact that absorption of the poison is essentially from the mucous membrane rather than from the contents of the closed loop."

"The intoxication of a closed loop is not modified by the presence of bile, pancreatic juice, or gastric secretion."

"Cessation of the normal flow of intestinal fluids which bathe the mucous membrane may be essentially responsible for the perverted activity of the mucosa and secretion of a poisonous material into the blood."

"Animals may be slightly more resistant to closed or drained loops during the warm months, which may be explained by the increased loss of body heat in the colder months. This indicates that cases of acute intestinal intoxication with sub-normal temperatures may be benefited by a generous supply of artificial heat."

In the same Journal, Flexner, Clark and Amoss have "A Contribution to the Epidemiology of Poliomyelitis in which they conclude that the epidemics of this and other diseases may follow the evolutions of a pure culture they watched. This strain of the virus was watched through four years. At first the toxicity was low, then reached its maximum and gradually faded away.

Later the same men announced that the virus of poliomyelitis is not confined to the central nervous system, but is found in the spinal, Gasserian and abdominal sympathetic ganglia. The virus is highly resistant to glycerine, in which it survives for more than two years; to 0.5 per cent, phenol, in which it survives for more than one year; while it succumbs after having been frozen constantly for several months.

Davis in the February Bulletin of the Johns Hopkins Hospital, has an article upon "Intestinal Obstruction: Formation and Absorption." In this paper he comes to the conclusion that it is the mucosa which produces the poison, due to a slight but quite undiscernable change from normal, mucous membrane the toxin is not absorbed.

T. O. VANAMEE.

Book Reviews.

Progressive Medicine.

A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Robert Amory Hare, M. D. Lea & Febiger, Philadelphia and New York.

Vol. XVI, No. 1, goes largely into surgery of the head and neck, under which we find full mention of pineal tumors, treated by operation and by glandular medication. Alcoholic injections in tri facial neuralgia are accurately depicted in excellent diagrams. Much space is given to surgery of the auditory nerve in tinnitus and vertigo. Local anæsthesia is particularly mentioned, and an excellent illustration shows how to perform an accurate plastic resection for cancer of the lower lip. A large number of illustrations throw light on the surgery of the neck, on carcinoma of the breast and of the Æsophagus.

The section on infectious diseases speaks of the need of trained officials for public health business, describes the steam treatment of

anthrax, and mentions diphtheria, especially from the point of view of its recrudescence in Germany. Diarrhoea is mentioned largely and its treatment with silver gelatine and emetine discussed. Hookworm, leprosy and whooping cough receive copious annotation.

The section on rhinology and allied affections elaborates the surgical treatment of nasal diseases, mentions an instance of fatal embolus after a simple puncture of the maxillary sinus, and in conclusion much space is given to diseases of the labyrinth.

Volume II, goes into extensive detail on hernia, whilst many drawings fully illustrate the surgery of the stomach and intestines. Under gynæcology, we observe much space given to cancer of the uterus, and in the ophthalmic section, doubts are raised concerning the indiscriminate use of strong silver nitrate or silver salt solutions as a preventive to the ophthalmia of infants.

A copious index enables the practitioner to lay hands rapidly on any given topic in each of these numbers of this valuable quarterly.

J. A. S.

Materia Medica, Pharmacology, Therapeutics and Prescription Writing.

For students and practitioners. By Walter A. Bastedo, Ph. G., M. D., Associate in Pharmacology and Therapeutics at Columbia University. Octavo of 602 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$3.50 net.

In the preface of this edition, Dr. Bastedo says we are at the dawn of a new era of simple and practical therapeutics, an era in which knowledge will supplant credulity on the one hand and scepticism on the other, and in which fewer drugs will be used but better treatment given.

One will look in vain for many of the remedies which for several decades have encumbered works in materia medica. Certain others are mentioned only to be condemned. Their places have been filled by the *chemicql assay and the method of psychological standardization*. An epoch of empiricism is giving way to a scientific study based on the new physiological principles of standardization, together with the more comprehensive view of therapeutic effects made possible by advances in serological bacteriological methods the results of the application of modern diagnostic appliances, such as the electro-cardiogram and polygraph, the glandular extracts and animal experimentation.

Many old idols have fallen as the result of critical research, but new ones have arisen to take their place. The book is an adaptation, for the most part, of the author's lectures given to university students and represents his conception of that which is modern, practical and concise.

To one unfamiliar with the work, the arrangement will be found somewhat at variance and the subject matter treated in a manner quite different from the works of even a few years ago and may at first be slightly confusing but a careful perusal of the volume is sure to demonstrate the fact that those who are leaders in this branch of medicine have kept pace with advances in other lines and are endeavoring to place pharmacology and therapeutics on a meritorious and unshakable scientific basis.

H. E. M.

The Text Book of General Bacteriology.

By Edwin O. Jordan, Ph. D., Chicago.

The appearance of the fourth edition of Jordan's Bacteriology revised and enlarged attests the value of the work. Its chief value to the student lies in the successful attempt which the author has made to present the subject broadly in its relation to industry, agriculture, sanitation and medicine.

In addition to such information as one might expect to find in a text book of bacteriology, Dr. Jordan has given his readers in succinct and interesting form most illuminating chapters on "Filterable Diseases," the "Bacteriology of Milk and Milk Products," "Bacteria and the Nitrogen Cycle," "Bacteria in the Arts and Industries," "The Bacteria of Air, Soil and Water," and the "Bacterial Diseases of Plants." The book is one that is read with delight as well as profit. It ought to be in the library of everyone who is concerned with the relation of bacteria to the public health.

E. W. G.

International Clinics.

A quarterly of illustrated clinical lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Pædiatrics, Obstetrics, Gynæcology, Orthopædics, Surgery, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene and other topics of interest to students and practitioners, by leading members of the medical profession throughout the world. Edited by H. W. Cathell, M. D., Philadelphia, Pennsylvania. Lippincott, Publishers, Philadelphia and London. Price, \$2.00.

Among the interesting subjects treated in Vol. 1, Series 24, we find under "The Treatment of Nephritis" by Dr. R. N. Willson, mention of diet, rest, medicines, hydrotherapy and intestinal hygiene. Uræmia calls for purging, blood letting and spinal puncture. In "Prophylaxis of Rheumatism" by Dr. N. S. Davis, attention is called to tonsillitis, pyorrhœa alveolaris and accessory sinus diseases as causes of acute attacks. "The Immediate Treatment," by Dr. L. D. Frescoln

has valuable suggestions for emergencies. A paper by Dr. D. M. Holt on "Poisons," is worth bearing in mind. Finally we read with interest "A new Method of Inhalation" by Dr. H. C. Thomas, which consists in the use of compressed air, steam and vapors.

"Circulatory Accidents in Acute Infections," by Dr. W. L. Bierring tells us of thrombi and thromboses and is valuable to the practitioner. Under the ambiguous title of "Interesting Surgical Cases," one which every editor owes it to his readers to suppress, can be found cases of tuberculous skin disease, diaphragmatic hernia and others of great value but buried by its worthless title.

The last chapter of this issue contains a careful review of the progress of medicine, as a benefit to public health.

The International Clinics we commend highly to our readers as a sure means of keeping up with the times.

J. A. S.

Saunders's Question Compends. Essentials of Bacteriology.

By M. V. Ball, M. D., formerly Instructor in Bacteriology at the Philadelphia Polyclinic. Seventh edition, revised. Assisted by Paul C. Weston, M. D., Pathologist State Hospital for Insane at Warren, Pa. 12 mo. of 321 pages, with 118 illustrations, some in colors. Philadelphia and London. W. B. Saunders Company, 1913. Cloth, \$1.00 net.

A concise and systematic introduction to the study of bacteria and allied micro-organisms, incorporating the newer established facts. It is written chiefly for the medical student for use in the laboratory and we are sure it will prove a valuable book, not only for the student, but for the general practitioner as well.

State Board Questions and Answers.

By R. Max Goepp, M. D., Professor of Clinical Medicine at the Philadelphia Polyclinics. Third edition. Thoroughly revised. Octavo volume of 717 pages.

A third edition of this book, thoroughly revised, has just made its appearance. Evidently, its usefulness is appreciated. Its very name or title explains its intended use. It is not a text book nor does it pretend to be such.

Its purpose is to provide a convenient compend for the use of those who wish to prepare themselves for the State Board examinations. In its proper use, it gives results and is indeed a valuable aid, as many of us may testify. The book is from the press of W. B. Saunders of Philadelphia, and its cost is \$4.00.

A. P. L., JR.

County News.

HANCOCK.

JULY MEETING.

On Wednesday, July 22, 1914, at Bar Harbor, Dr. Geo. Phillips entertained the Hancock County Medical Society. Dr. Raymond Bliss, recently located in Blue Hill, was accepted as a regular member. Dr. James F. Mitchell of Washington, D. C., and Dr. Harold Williams of Boston became honorary members.

Dr. Frank Fremont Smith of Washington, D. C., read an entertaining paper entitled "Complications of Heart Disease in Pregnancy."

Dr. Geo. Phillips reported the cure of a case of morphine addiction.

The lunch tendered by the host during the social hour was voted rather extra fine by all present.

AUGUST MEETING.

Dr. James F. Mitchell of Washington, D. C., entertained the Hancock County Medical Society at his residence in Bar Harbor, Wednesday evening, August 19th.

Dr. Mitchell presented an instructive and entertaining paper on "Local Anesthesia." He demonstrated that it is possible to perform a majority of the abdominal operations by local anesthesia alone.

Dr. Robert Abbe of New York gave a talk on "Practical Radium," illustrated with many stereopticon views, and instruments and receptacles by which radium is handled. The value of the radium present that evening was \$35,000.

A large attendance was present especially from out of the county. The excellent lunch furnished by the host made the social hour most enjoyable.

G. A. NEAL, *County Editor.*

OXFORD.

The annual summer meeting of the Oxford County Medical Society at which the families and friends of the members were invited, was held at Bethel Inn on the 30th of July.

An excellent banquet was served at 6.30, after which the party adjourned to the parlors where a very interesting paper was read by Dr. Frederic Henry Gerrish, and was greatly appreciated by all. The society was fortunate in securing for further entertainment the motion pictures of the famous Paul J. Rainey African hunt. These pictures were both interesting and instructive from a scientific standpoint and a large number of the people of Bethel and the surrounding country took advantage of the opportunity to see them.

The attendance was rather smaller than usual, but those present reported a fine meeting.

D. M. STEWART, *County Editor.*

WASHINGTON.

The regular meeting of the Washington County Medical Society was held in Machias, Thursday, August 14, at 10 o'clock A. M. Fifteen physicians present. Two clinical cases were presented for examination, and ten case reports for discussion. The society was pleased to receive a visit from the President of the State Association. By vote passed at the spring meeting, the afternoon session was held in conjunction with the Washington County Anti-tuberculosis Society.

Papers were read upon "The Early Diagnosis of Tuberculosis," and "Things that ought to be done," the latter referring to the work of the society.

Addresses were delivered upon "The School as a Factor in Eliminating the Disease," and upon "The Tuberculosis Situation in the County."

There was a general discussion and a committee was appointed to confer with the county commissioners relative to the establishing of a county sanatorium.

Both societies are active and efficient—the tuberculosis society maintaining a county nurse.

The meetings of the Medical Society are well attended, interesting, and there is always abundance of material for discussion.

H. B. MASON,

County Editor.

Personal News and Notes.

Beginning with the October issue and quarterly thereafter, the American Journal of Surgery will publish a 32 page supplement, devoted exclusively to anesthesia and analgesia.

Report of Committee on Venereal Diseases and Their Prevention.

Presented June 10, 1914.

Mr. President and Members of the Association:

One year ago the Association voted fifty dollars towards carrying on the work of this committee. During the year, two hundred dollars has been subscribed and paid in.

Following is a summary of the receipts and expenditures to date:

RECEIPTS.

Subscriptions, 1911 - 1912	\$480.00
Maine Medical Association, 1912	50.00
Maine Medical Association, 1913	50.00
Interest accrued	28.75

SUBSCRIPTIONS, 1914.

Mr. Robert H. Gardiner, Gardiner, Maine.....	\$100.00
President William DeWitt Hyde, Bowdoin College.....	10.00
Dean K. C. M. Sills, Bowdoin College	5.00
Dr. F. N. Whittier, Brunswick, Maine	25.00
Professor and Mrs. George T. Files, Brunswick, Maine.....	25.00
Dr. Dudley A. Sargent, Harvard University.....	10.00
Lewis A. Burleigh, Esq., Augusta, Maine	5.00
Dr. E. E. Holt, Portland, Maine	10.00
Mr. Hiram W. Ricker, South Poland, Maine	10.00
Total receipts	\$808.75

EXPENDITURES.

Prior to 1913 - 1914.

Bills approved by the chairman and paid by the treasurer.....	\$ 50.00
Literature	2.50
Telegram25
2,000 copies of "The Boy's Venereal Peril"	40.00
Postage	40.76
Clerical work	84.69
Express	4.90
Printing and stationery	27.65

1913-1914.

1,000 copies of "The Boy's Venereal Peril,"	20.00
Postage	72.65
Clerical work	171.25
Express95
Printing and stationery	40.65

Total expenditures \$556.25

Balance on hand in Brunswick Saving Institution..... \$252.50

During the past year the committee has continued its work of disseminating information upon sex hygiene and the dangers of the venereal diseases. The plan has been followed of obtaining from school superintendents in various parts of the State the addresses of parents having children of grammar school age. About one thousand individual letters with the pamphlets and reports have been sent to parents during the past year. About fourteen hundred letters with pamphlets and reports have been sent to parents during the past two years.

While other methods of teaching sex hygiene have received severe criticism from clergymen, teachers and others, the method adopted by the committee of teaching the importance of prevention through parents, has not been included in the criticism. It is gratifying to the committee that, while inviting objections in each letter to parents, no word of criticism has been received from this source.

The pamphlet used is "The Boy's Venereal Peril," published by the American Medical Association. An effort has been made by the committee to find a similar pamphlet for girls, but up to the present time none has been found that is entirely satisfactory.

The committee has made an effort to acquaint the clergymen of the State with the work undertaken. Two hundred and sixty personal letters have been

sent to the clergymen of the State and many letters of appreciation have been received in reply.

Many letters, pamphlets and reports have been sent to educators, Board of Health officials, societies in other States, and others who seemed likely to be interested in the work. A number of requests for information in regard to the work in Maine and many letters of commendation have been received.

The committee wishes to continue next year the sending of pamphlets and letters to parents having boys of grammar school age; also to develop public opinion throughout the State for including syphilis, gonorrhœa, and chancroid in the list of infective diseases made reportable by law to the State Board of Health, provided these diseases be reported by number rather than by name.

The committee asks the Association for an appropriation of fifty dollars to assist in carrying on the work during the next year. Such an appropriation would not only be a help in itself, but would also be an endorsement of the work of the committee by the Association and as such aid much in raising funds to make the work effective.

Among the letters of endorsement received during the past year are the following:

Charles W. Eliot, President Emeritus of Harvard University, President of the American Social Hygiene Association, Inc., Cambridge, Mass.:

"I am obliged to you for sending me the Reports of the Committee of the Maine Medical Association on Venereal Diseases and their Prevention, and also Pamphlet issued by the American Medical Association. Both Associations seem to have abandoned completely the policy of silence. Many state boards of health have also abandoned it. I find great encouragement in these facts."

The Society of Sanitary and Moral Prophylaxis, New York City, Miss Olive Crosby, Office Secretary:

"On my return from an absence due to illness, I found your letter, with the very interesting report of the work done in Maine.

"May I say that I think it is one of the best reports that has come to my attention in a very long time, as it is practical and conservative? We shall be very glad to co-operate with you in any way that we can, and assure you of our interest in the work which you are doing."

Hon. Payson Smith, State Superintendent of Public Schools, Augusta, Maine:

"I congratulate you and your committee upon the splendid work that has been accomplished during the past year. I should be glad to serve you in any way possible."

Hon. Bert M. Fernald, Ex-Governor of Maine, West Poland, Maine:

"I acknowledge the receipt of your letter of the 4th, and have read the report of your committee with great interest. I can make no suggestion that would be of value, except that more interest should be taken by the business men of the State, in the work you have undertaken.

"I am glad to hear from you at all times, and appreciate the courtesy of the report forwarded."

Rev. Robert Codman, Bishop of Maine, Portland, Maine:

"I have read with the greatest interest the report of your Committee on Venereal Diseases, and I want you to understand that I am thoroughly satisfied with the committee's work, and earnestly hope that the work may be continued."

President George C. Chase, Bates College, Lewiston, Maine:

"I have your letter of August 5th enclosing the report of your committee to the Maine Medical Association. I thank you for the letter and the report and am deeply interested in the work undertaken by your committee and promoted by the Maine Medical Association. I should be glad in any way permitted me to contribute to the success of the important work in which you are engaged."

Rev. Joshua M. Frost, District Superintendent, Auburn, Maine:

"Thanking you for the pamphlets recently received concerning venereal diseases I assure you that you may depend on me to carry out your request in relation to the more than fifty preachers on my District and will carefully consider the best plan for such co-operation."

Rev. W. Merton Snow, Pastor Advent Christian Church, Mechanic Falls, Maine:

"The reports of your committee, together with the pamphlet that you are sending out to parents that the child may be safeguarded against venereal diseases, came to hand and I have been much interested in reading of your work. I am heartily in favor of the steps that you are taking and shall watch your efforts through coming days with interest.

"I note that you willingly supply copies of the pamphlets to those who desire to help place them. I should be pleased to receive a half dozen copies if you have them to spare. It is one of the problems of a Pastor to know just how to approach the young along this line, and the pamphlet will be of great assistance I am sure.

"It is my hope that the State Board of Health will add Syphilis, Gonorrhœa and Chancroid to the list of diseases which physicians are required to report to the State Board. May it be done speedily."

Rev. A. L. Leach, Pastor Methodist Episcopal Church, Gorham, Maine:

"Received reports and your pamphlet. Have read it from cover to cover. It fills a great need. My experiences in two insane hospitals and in operating rooms have shown me the need of just such advice and knowledge for boys. Will you not have a similar one written for young girls, as their need is as great? I shall be only too glad to receive twenty-five copies more which I certainly can use. Already I have given away the copy I received yesterday. Enclosed find names."

Rev. Dorr A. Hudson, Westbrook Congregational Church, Westbrook, Maine:

"Your letter and pamphlets have been received and read with much interest. I am glad you and others are doing such needed work.

"Certainly all ministers ought to be most willing to co-operate in so vital a work as you represent. Let me hear from you if you think I can aid you in any way."

The committee feels that the work is being carried on very economically and effectively and asks that the committee be continued and an appropriation of fifty dollars be granted.

(Signed) F. N. WHITTIER, M. D., Brunswick,
A. L. STANWOOD, M. D., Rumford,
E. E. HOLT, M. D., Portland,
F. H. JACKSON, M. D., Houlton,
A. S. THAYER, M. D., Portland.

THE JOURNAL

OF THE

Maine Medical Association.

Published under direction of the Council of the Maine Medical Association

All papers, case reports, etc., should be type-written when possible.
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The Journal assumes no responsibility for opinions expressed by the authors.

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OCT., 1914.

No. 3

*THE TREATMENT OF DISEASES OF VEGETABLE PARASITIC ORIGIN BY DEEP MUSCULAR INJECTIONS OF MERCURY.

BY BARTON LISLE WRIGHT, M. D., SURGEON, U. S. NAVY.

In 1905, I first began to use mercury in the treatment of tuberculosis, but it was not until 1907 that I had an opportunity to try out its value extensively.

From then until 1910, when I was detached from the U. S. Naval Hospital for Tuberculosis, Las Animas, Colorado, to take my turn at sea, I published several reports of my results, some of which I will bring to your attention later in this paper.

In 1910, while serving on board the U. S. S. Nebraska, I became intensely interested in Ehrlich's theory:

That for every parasitic organism there is a chemical affinity, which if found and injected into the infected host, would destroy the infecting organisms, and therefore cure the specific disease.

His first successful experimental demonstration of this now well known and recognized fact, was made in connection with trypanosomiasis in mice by the injection of trypan rod.

After some experimental work, he found that he could with great uniformity destroy all of the infecting organisms and absolutely cure the disease with one injection.

These experiments not only proved the correctness of his theory but developed two most important facts:—first, to produce the immediate curative effect the dosage of the initial injection must be ex-

*Read before the Maine Medical Society at Portland, Me., June 11, 1914.

tremely large; second: that small and frequently repeated doses, were not productive of rapid results, and when continued uninterruptedly unduly long, rendered the infecting organisms immune to their chemical affinity.

From my results in the treatment of tuberculosis with mercury, I was convinced that this metal was the chemical affinity of the tubercle bacillus. Granting this, why should it not bear the same relationship to the entire group of the vegetable parasites?

After long consideration, I was convinced that this must be the fact, and developed my theory as follows:

For every vegetable parasite, mercury is the chemical affinity, and when properly injected into the infected host will cure the specific disease. Representing this by chemical formula, as follows: (Vegetable antigen + Hg.) + antibody + complement = complement fixation. (cure)

I now believe that mercury has a dual parasitotropic action: First — primary or direct, in which the Hg. by affinity unites with the organism, and without antibody, binds complement. Represented by formula as follows:

Vegetable antigen + Hg. + complement = complement fixation. (immediate cure.)

Total destruction of all the infecting parasites or of their virulency, with immediate cure takes place. I am led to believe that this action is limited to the first few days after the onset of the acute infectious diseases, the period of time during which it will take place seeming to differ in each disease, in some it will be found to extend to the sixth day, in others probably only during the first or possibly the second day.

This is due, I believe, to changes in the organism acquired by the prolongation of their existence in their new environment, by which they gradually lose most, if not all, of their affinity for mercury.

I have never seen this action take place in a subacute or chronic infection.

Second: — Secondary or indirect, for the reasons noted above the affinity of the organisms for Hg. having been partially or completely nullified, instead of uniting with them, Hg. stimulates the rapid production of specific antibody. (Reference 1.)

This secondary action takes place in two stages and may be represented by chemical formulæ as follows:

First stage: Vegetable antigen + Hg. = stimulated specific antibody production. 2nd stage: Vegetable antigen + antibody + complement = complement fixation. (rapid cure) These reactions take place in the late stages of acute, throughout the course of subacute and

chronic infections, producing as a rule, marked beneficial, with rapid but not immediate curative effects.

It is probable that both the direct and indirect actions of mercury in these infections, occur in every case injected; under certain conditions one or the other predominating, the other taking a subsidiary part in the cure.

It is obvious that in addition to the large dosage required, that rapid absorption is equally necessary, therefore one of the soluble salts or mercury is absolutely indicated.

In my work I have selected mercuric succinimide because I believe that a larger dose of this salt can be injected than of any of the others, and at the same time its parasitotropic action is many times greater than its organotropic advantages, which from experience I do not think the other soluble salts possess to an equal extent.

Mercuric succinimide gr. $\frac{9}{5}$ = metallic Hg. gr. 0.909.

In general, from what I have previously said, it is obvious that in the early days of an acute infectious disease the maximum dosage is solely indicated, while in the late days of these diseases, or in subacute or chronic infections smaller and more numerous injections are to be used.

During the early days of an average acute infection in an average adult male, the initial dose of mercuric succinimide should be gr. $\frac{9}{5}$, if at the end of twenty-four or thirty-six hours there has been no improvement, or if following improvement, there has been a return of symptoms give a second injection of from gr. $\frac{5}{5}$ to gr. $\frac{6}{5}$, providing symptoms of mercurialism have not followed the first injection. In the more virulent and quickly fatal of the acute infections, such as meningitis, whatsoever its etiology, the initial dose should be gr. II.

In chronic infections (late days of acute and in subacute infections) in average adult male, the initial dose should be gr. $\frac{5}{5}$ to gr. $\frac{7}{5}$.

Succeeding injections should then be given with from two to four day intervals, in such dosage as will not produce mercurialism, until ten or twelve injections have been given, providing symptoms have not disappeared in the mean time. When ten or twelve injections have been given, interrupt the treatment by from two to five weeks' time, in order that the mercury shall be eliminated and the organisms may not become immune to its action through its constant presence in their environment.

In some of the more persistently chronic infections the interval of time between injections should be from four to eight days.

In females the dosage should average from gr. $1/5$ to gr. $2/5$ less than in males.

Should symptoms of mercurialism appear at any time during the course of treatment, stop injections at once, and apply appropriate corrective measures, resuming injections if necessary upon the disappearance of these symptoms.

During this treatment the oral cavity and the teeth must have the utmost attention and be kept perfectly clean at all times, and the bowels moved freely daily.

Surgical asepsis must be carefully observed in every particular relating to syringe, needles, solution and skin at site of injection.

Solution made so that of sterile, distilled water Minims IV = mercuric succinimide gr. $1/5$. Inject deeply in gluteal muscles.

The only contraindication to this method that I know of is serious organic lesions of the kidneys.

With the foregoing in view, I invite your attention to the following cases.

TUBERCULOSIS.

(35 cases)

Between 1907 and 1910, at the U. S. Naval Hospital, Las Animas, Colorado, I treated 35 officers with this disease. They were not selected cases of incipient character, but ranged from moderately advanced to far advanced, one was a case of acute pneumonic phthisis that two months previously had been originally diagnosed typhoid fever.

In addition to the lung involvement, two cases had tuberculosis of the knee joint, one of the knee joint and lower third of femur and one had tuberculous ulceration of the larynx.

I discharged from the hospital nineteen of these cases, or 54.2% as apparently cured, including the two knee joint cases, and the case of laryngeal involvement.

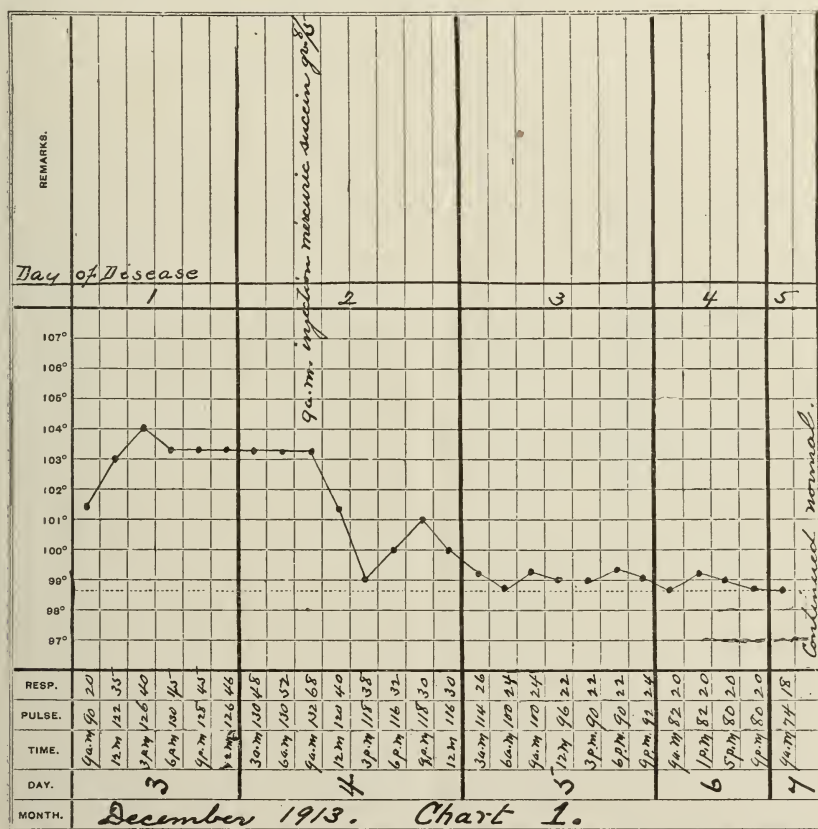
Since then but five of these cases have relapsed, one of which died.

Of the sixteen not apparently cured, in ten the disease has been arrested and they are leading a fairly normal existence in various parts of the United States.

Among these the knee-femur case may be specially mentioned; when I operated on him in 1909, I removed the inner half of the lower third of the right femur, and this bone was in such bad condition that my colleagues and assistants urged me to amputate at the hip. This patient is now living in New York city with a sound limb, though a stiff knee joint.

It is also of interest to note that the case which began as an acute pneumonic phthisis, reaching me with a large cavity in the upper left lobe, is now married and living in the State of New York.

Two of these cases showed no change, two I have lost track of, and two died while not under my care.

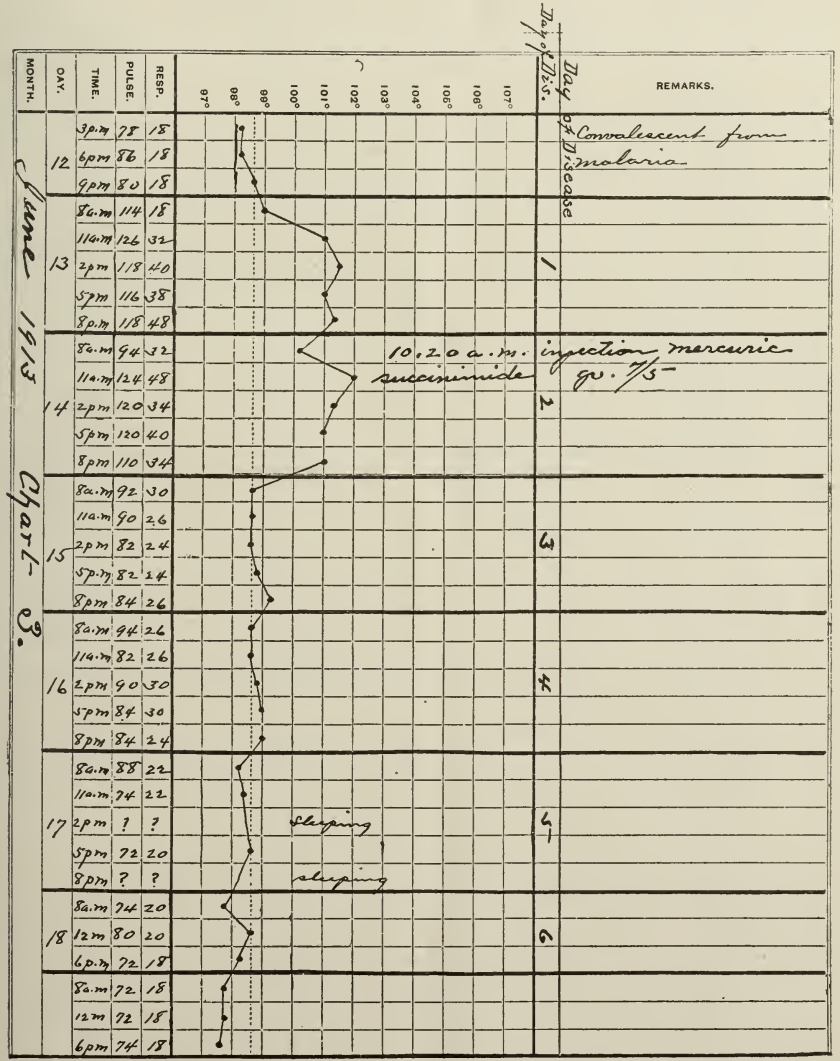


LOBAR PNEUMONIA.

(nine cases) (Reference 2)

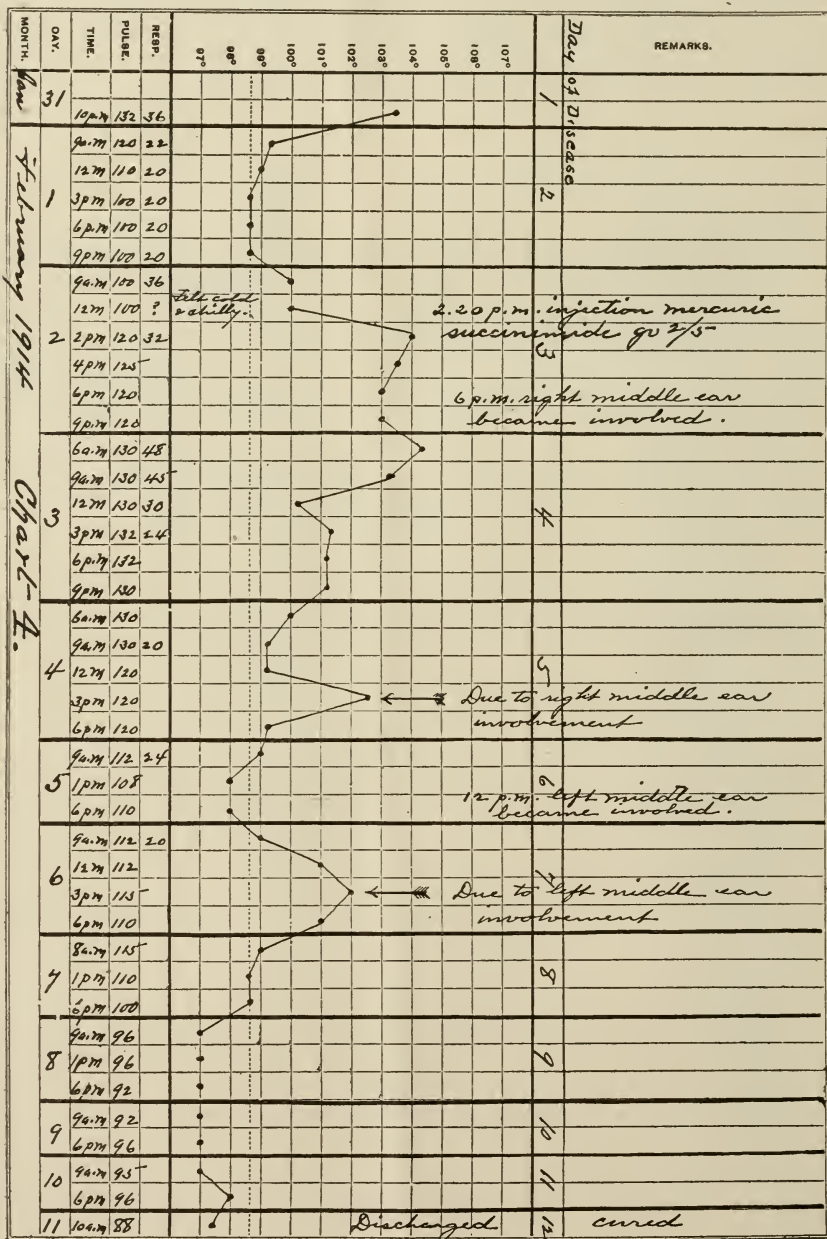
Of these, eight were immediate cures following one injection, the crisis usually began in about seven hours after injected, in several within an hour or so after injection. In one the injection was given on the first day of the disease, in two on the second and in six on the third day. The case that was not immediately cured received three injections, the fever falling by lysis on the 5th day, the involved area never completely undergoing resolution, and the evening temperature reaching 100 to 99 for the following two weeks, when a diagnosis

It seems probable in cases of pneumonia complicated by pre-existing pulmonary disease, more particularly tuberculosis or syphilis, whether active or latent, that the direct immediate curative action of mercury will not take place, therefore when such immediate cure does not follow the initial injection in the early days of the infection, the possibility of such complications should be considered.



LOBULAR PNEUMONIA.

Six cases of this disease have been treated, in all of which an immediate cure was obtained. In one, the action was somewhat delayed, due in this instance to infection of both middle ears, the latter



condition not however progressing to suppuration, this in itself gratifying, and showing the value of mercury in preventing or at least averting a complication that usually persists for some length of time.

B—— W. W. Disease began rather suddenly on June 13, 1913. Slight chill at 8.00 a. m., followed by severe cough, at 8.00 p. m., temperature 101.2, pulse 118, respirations 48. June 14th, 8.00 a. m., about same, expectoration, free and characteristic, the entire area of both lungs presented the physical signs of lobular pneumonia; 10.20 a. m., Surgeon Bogan injected mercuric succinimide gr. 7/5. Crisis began at 8.00 p. m., complete at 8.00 a. m., June 15th. Convalescence uneventful. See chart No. 3.

G—— J. Male. Age 4 years. First saw patient at 10.00 p. m., January 31, 1914. Cough developed the day before. Upper right lobe presented numerous sub-crepitant rales, temperature 103.6, pulse 132, respirations 36. Early lobar pneumonia suspected. Magnesium sulphate prescribed. By the following morning all symptoms had practically subsided and remained so during the day. February 2nd all symptoms increased. 1.30 p. m., chill. P. A. Surgeon Wheeler and myself saw the case together at 2.00 p. m., diagnosis of lobular pneumonia made. 2.20 p. m., injected mercuric succinimide gr. 2/5. At 6.00 p. m., right middle ear became involved. Patient extremely restless, and crying from severe pain in this part. Hot water bag locally. February 3rd, 6.00 a. m., apparently much worse, severe pain in right lung. Temperature 104.2, pulse 130, respirations 48. Castor oil 15 c. c., administered. Improvement began by 9.00 a. m., and continued. February 4th, all pneumonic symptoms disappeared, convalescence apparently established. 3.00 p. m., pain in right ear returned, associated with rise of temperature, which rapidly subsided. February 5th, without symptoms until midnight when severe pain developed in left ear. February 6th, rise of temperature due to left ear involvement. February 7th, no symptoms. February 8th up and about. February 11th, cured. Visits discontinued. See chart No. 4.

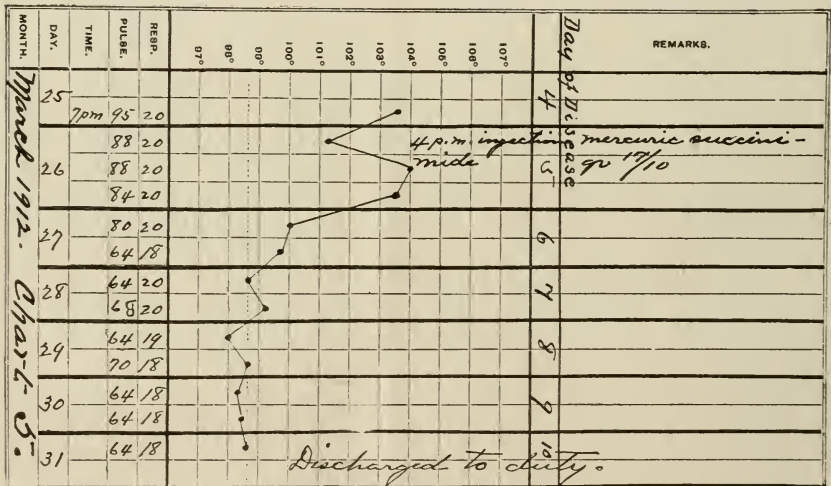
TYPHOID FEVER.

(5 cases)

In this disease I am under the impression that the 6th day is the limit of time during which the primary or direct parasitotropic action of mercury may be expected to take place. Therefore up to and including this day, the initial injection should be gr. 9/5 in average adult males, with a second injection of gr. 5/5 or gr. 5/5 in twenty-four hours if required. From the 6th to 10th day the initial injection may be gr. 9/5, but the second injection must not be given until

seventy-two or ninety-six hours have elapsed. After the 10th day the initial injection in an average adult male must not be more than gr. 5/5 and succeeding injections not repeated more often than every seventy-two hours, the dose gradually decreasing at the same time.

The first case of this disease treated and reported (reference 3) was injected with mercuric succinimide gr. 7/5 on the seventh day of the disease, the temperature then being 103, by the following morning it was practically normal, shot up to 102 during the day when a second injection was given, a third and fourth injection resulted in normal evening temperature and the patient was out of bed and around the ship before the temperature would have reached normal in the usually treated case. In another week he went to his home on ten days leave, upon his return he presented himself with a large abscess in right lumbar region. Was transferred to hospital at Boston, Mass., where he was found to be suffering from "typhoid spine;" had he been injected earlier in the disease, I think this complication would have been avoided.



Case 2. Admitted 7.00 p. m., March 26, 1912, stated that he had not felt well for a week or ten days. Complaint: headache, profound malaise and constipation. Temperature 103.6, pulse 95, respirations 20. Oleum ricini 30 c. c., large movement of bowels 8.00 p. m. March 26, no change. Urine shows motile bacilli in large numbers. 10.00 a. m., temperature 104, pulse 88, respirations 20. 4.00 p. m., injection mercuric succinimide gm. 0.110 (gr. 17/10), immediate improvement. 10.00 p. m., temperature 102, patient felt much better. March 27 — Marked improvement. 8.00 a. m., temperature 100, pulse 80, respirations 20. Termination by crisis. See chart No. 5.

From this time on convalescence uneventful, discharged to duty March 31, 1912, having been under treatment just seven days.

PARATYPHOID.

(1 case)

Hospital apprentice reported to me at 7.00 p. m., one evening in November, 1912, saying that he had been feeling badly for a few days and had kept a chart of his morning and evening temperatures, thinking he had tuberculosis. The chart showed the typical rising curve of typhoid, and that evening had reached 102, (4th day); he was placed in bed on liquid diet under observation. The following morning microscopic examination of urine showed numerous motile bacilli. Culture made and sent to the laboratory of U. S. Naval Medical School, Washington, D. C., for identification. That evening temperature reached 103, and he was given gr. 9/5 of mercuric succinimide by injection. Following morning, temperature was normal, went to 102 in the afternoon when second injection gr. 6/5 was given. The following morning, temperature was normal and remained so, and in three or four days he was returned to duty at his request. Some days later the laboratory reported the culture to be one of the Gartner group, none of which excepting B. paratyphoid B. would have produced the clinical symptoms of typhoid.

CEREBRO-SPINAL MENINGITIS.

(1 case)

In December, 1912, I was transferred to the Naval Hospital, Norfolk, Virginia, for treatment. Several weeks before they had received a case of cerebro-spinal meningitis, clinical symptoms and laboratory findings confirmed diagnosis. Lumbar puncture with drainage and the introduction of antimeningococcic (Flexner's) serum was instituted at once and continued, the patient died during the sixth week of the disease. About the middle of December, his former room mate was admitted to the medical ward, about 4.00 p. m., diagnosis undetermined, health record stating that he had been taken sick suddenly the day previous, with moderate temperature and delirium. On admission the patient was delirious, and presented all the classical symptoms of cerebro-spinal meningitis, such diagnosis (etiology not determined) was made, gr. II of mercuric succinimide injected at 4.20 p. m., and the patient transferred to the contagious wards. Telegram sent to Philadelphia for Flexner's serum. At 7.00 p. m., lumbar puncture was done and 90 c. c. of extremely cloudy cerebro-spinal fluid under great pressure withdrawn. This contained a large amount

of pus, a high percentage of albumen and was positive for the diplococcus intracellularis. The following morning the temperature was 99, blood pressure 187, the delirium had disappeared and the patient recognized the fact that he was in a hospital. 10.00 a. m., lumbar puncture was done, the spinal fluid was almost clear, almost free from pus cells, with a faint trace of albumen. In spite of the very marked improvement the medical officer in charge of the case, felt that he must administer serum, which was done, at the same time gr. 8/5 of mercuric succinimide was injected into gluteal muscles, rapid improvement took place. Following morning still further improved, second dose of serum was injected into the canal after drainage and gr. 5/5 mercuric succinimide injected into gluteal muscles. The following day his condition was nearly normal, lumbar puncture and drainage was done. The next day (4th since admission) patient normal, convalescence established. Mercuric succinimide gr. 4/5 injected. Following this convalescence uneventful, resulting in complete recovery in every respect.

ERYSIPELAS.

(2 cases)

First case on fourth day had upper half of face including nose and ears involved, temperature 106, profound toxemia, delirium. Injections gr. 8/5, 7/5, 5/5 on successive days. After first injection delirium disappeared, maximum daily temperature did not go above 103. Reaching port, patient transferred to hospital.

Second case — First day nose involved, temperature 102.5, injection gr. 17/10 at 10.00 a. m. Following morning normal, all symptoms disappeared. Cured and to duty in forty-eight hours.

INFECTIOUS ARTHRITIS.

(39 cases)

Acute rheumatic fever (8 cases); (Reference 4.)

In this particular infection where the normal alkalinity of the blood is known to be reduced, I have found it advantageous to correct this by giving fairly large doses of potassium or sodium citrate or sodium bicarbonate, either the day before or on the day of the injection.

The following cases are examples of the results that may be expected.

Case 1 — Admitted to Naval Hospital, Portsmouth, N. H., September 8, 1913, from the U. S. S. Hannibal, as with acute rheumatic fever. A Wasserman proved negative and the diagnosis was confirmed. All previous treatment discontinued. Injection mercuric succinimide gr. 7/5. At this time both shoulders, both ankles and the

joints of left hand involved. Immediate improvement followed the injection. September 11th injection gr. 5/5 — September 15th pain about disappeared. Injection gr. 4/5. September 15th — practically well. A few more injections were given as precautionary measures. The heart did not become involved and the patient returned to his ship and duty perfectly well.

Case 2 — Age 9 years, male. First saw patient on March 5th, 1914, which was about the twenty-second day of the disease, and confirmed a diagnosis of acute rheumatic fever, complicated by a severe endocarditis. Lungs negative. Previous treatment aspiran, for which I substituted methyl salicylate and sodium bicarbonate, the family not being willing at the time for me to inject. On March 8th, developed severe cough. March 9th in a. m., upper lobe presented harsh respirations and subcrepitanes rales. 10.30 a. m., injection mercuric succinimide gr. 3/5. 3.00 p. m., physical signs of consolidation entire upper right lobe posteriorly. (Confirmed by colleague P. A. Surgeon I. H. Wheeler, U. S. N.). Some time after 6.00 p. m., crisis began and was complete by 4.00 a. m., (See chart No. 6). All pain practically ceased also. March 14th injection mercuric succinimide gr. 2/5, following which temperature became normal and has continued so.

CHRONIC ARTICULAR RHEUMATISM.

(7 cases)

The following case is an average example.

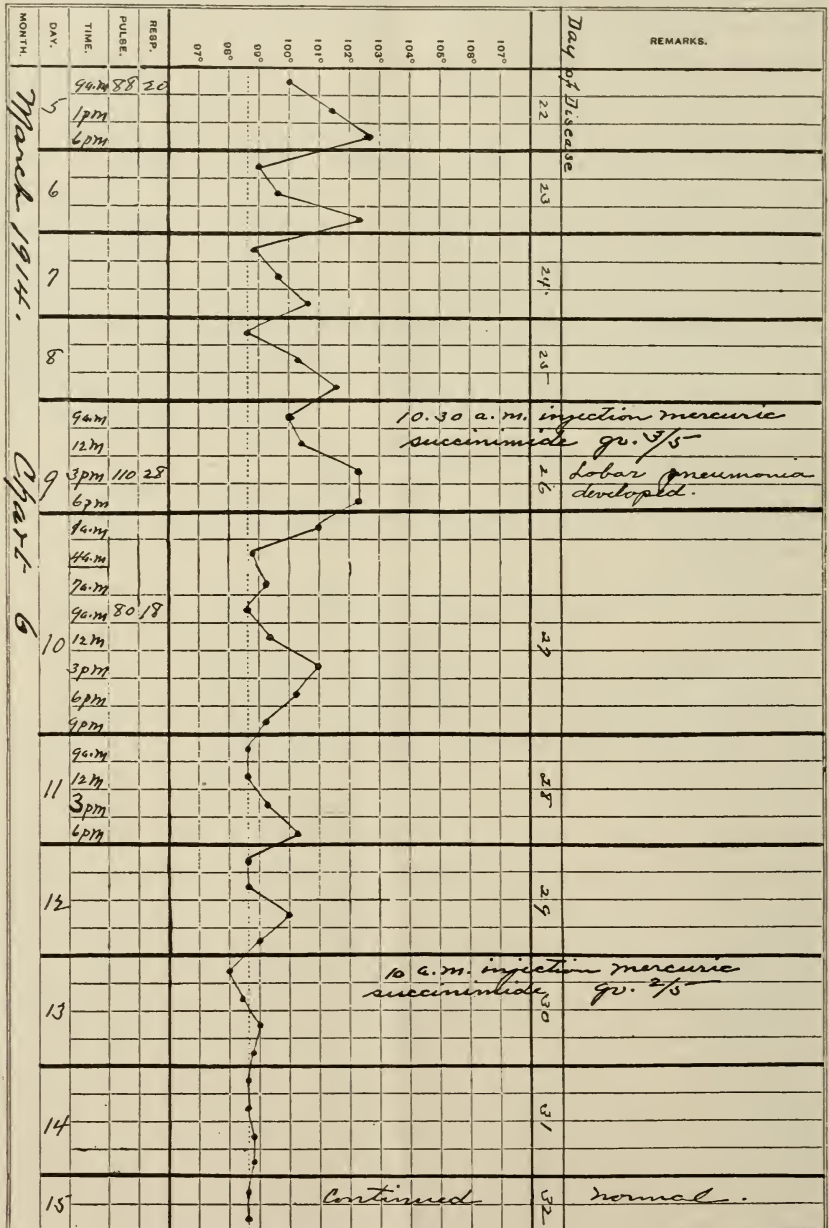
Mrs. — Age 52, two adult children and one minor child. Perfect health until March, 1911, when she developed a severe attack of acute rheumatic fever, confined to bed until following June. Since which time she has been a confirmed sufferer from chronic articular rheumatism. Came under my observation April 7, 1913. The heart, lungs and abdominal viscera apparently normal. Urine normal. Both knee joints, ankles and the joints of both hands were considerably swollen, and extremely tender and painful. The lower limbs were œdematous, and the abdominal cavity contained some fluid. The bladder was extremely irritable and painful. She was given the following injections of mercuric succinimide. April 11th gr. 5/5, 13th gr. 7/10, 16th gr. 3/5, 20th gr. 7/10. All symptoms disappeared by April 24th, and she remained apparently well until May 12th, when bladder symptoms returned. Injections resumed as follows: May 13th, gr. 9/10, 16th gr. 7/10, 20th gr. 7/10. Since this date she has remained perfectly well, has resumed her social duties and pleasures, eats freely of an unrestricted diet and is normal in every respect.

GONORRHOEAL ARTHRITIS.

(24 cases) (Reference 5.)

The following case being an average example.

Disease first treated at the Marine Recruiting Office, Topeka, Kansas, March 7, 1911, since which time he has been practically under



continuous treatment, and has had several negative Wasserman's. From Topeka, he was sent to the Post Graduate Hospital, Kansas City, Missouri, transferred to the Naval Hospital, Philadelphia, Pennsylvania, where he remained 59 days, being discharged June 14th, condition improved. Did duty at the Marine Barracks, Philadelphia and New York, up to January 24, 1913, during which time he was receiving treatment. Admitted to the sick list on board the U. S. S. Southery, Portsmouth, New Hampshire, February 1, 1913. Transferred to hospital, Portsmouth, N. H., March 4, 1913, as "not improved."

U. S. Naval Hospital, Portsmouth, N. H., March 4, 1913; Patient walked with great difficulty. The action of the heart very rapid and irregular. R Salol gr. XX, t. i. d., March 26th, no improvement. April 7th, rapid pulse continues (150 9.00 a. m.), no relief from pain. May 3, 1913, (Surgeon F. M. Bogan requested the writer to ask for a survey of this man, with the view of having him discharged from the service, or in lieu of that, see the patient in consultation and suggest a line of treatment.) Patient was bent forward at the hips, unable to extend the trunk into a vertical position. The right knee was considerably swollen, flexed and fixed at an angle of 60, was extremely tender and painful. The left knee and both ankles were involved, the bladder was extremely irritable. Temperature 100, pulse 120, respirations 24. Weight 149 pounds. (Normal 165.) Injections of succinimide of mercury as follows: May 5th gr. 7/5, May 7th gr. 6/5, May 8th mercurialism. 11th improved, temperature 98, pulse 82, injection gr. 9/10. May 15th, marked improvement, all pain practically disappeared. The swelling of the right knee had disappeared, there was perfect action in the joint. He was able to stand perfectly erect and walked with great ease, injection gr. 4/5, May 20th injection gr. 3/5. For the first time in two years he felt perfectly well, there was no limitation of motion in any joint, temperature and pulse were normal, weight 165 pounds. Since this date he has remained perfectly well. Lack of time prevents further details. In addition to the above there have been treated by my method, 15 cases of acute tonsilitis, all immediate cures, 5 cases of epidemic catarrh, cures. 1 case acute cystitis (staphylococcic), immediate cure. 3 cases chronic cystitis (gonococcic), 2 to 5 injections, rapid cure. 10 cases furunculosis, 2 to 3 injections. 32 cases of colon bacillus infection, rapid cures. 1 case acute pleurisy, immediate cure. 2 cases lymphangitis, immediate cure. 4 cases collulitis, 2 immediate and 2 rapid cures. 1 case of mumps, right parotid swollen and painful, left parotid painful, injected first day gr. 9/5, immediate cure. Vincent's angina, 1 case, rapid cure.

In addition to these cases, several independent foreign investigators claim and report the most excellent results from the use of mercury in the treatment of diseases of vegetable parasitic origin.

In October, 1912, Doctor Charles Souligoux, surgeon on the staff of the Hospital of Paris, France, reported to the Surgical Society of France 144 cases of puerperal septicemia treated by deep muscular injections of gr. 1/6 of mercury cyanide daily, with but three deaths. This report was published in detail by his assistant, Doctor Giru, in the Archives de Chirurgie of November 25, 1912.

In the course of his practice in Kiev, Doctor P. Krohl (reference 7) noticed that women who were undergoing a mercury treatment or who had recently finished one had a completely normal puerperium after a normal delivery or an abortion, in spite of the fact that they lived under the most unfavorable hygienic conditions.

"Moreover I noticed that syphilitic patients during and after a mercury treatment had a peculiar power of resistance to infection of every kind. Not only did they not take the ordinary infectious diseases, but in cholera epidemics they seemed immune to that infection."

With this in view he started experimental work with seventy-eight rabbits, and an extremely virulent culture of streptococci, dividing the rabbits into four groups—the first group of controls injected with streptococci, but not mercury. The second group before infection with the streptococci had immunizing injections of benzoate of mercury. The third group received injections of mercury at the same time as injections of streptococci. The fourth group did not receive injections of mercury until after the appearance of the symptoms of sepsis at various stages of its developments.

The animals of the first group all died of general septicemia, and in their blood large quantities of streptococci were found. The results obtained in the remaining three groups lead Krohl to the following conclusions:

"Giving a series of injections of benzoate of mercury in small doses (15 Mg. to Kilogram of body weight) renders the organism for a time, the duration of which is not accurately determined, not susceptible to infection with streptococci. A smaller number of injections in larger doses gives the same result.

The giving of small doses of mercury before the beginning of the disease, or the injection of large doses in the early stages of the disease, prevents the development of general septicemia.

Too small and too late injections of mercury do not help the organism in its struggle with infection, and the sickness ends in death from general septicemia." Upon these grounds he resolved to use

benzoate of mercury in his practice, and reports a number of cases the following being an example.

"N.——K. 29 years old. 3 days after her second delivery, chill, temperature 102.6, pulse 128, skin dry. Patient restless, very thirsty. Thoratic organs normal; mammary glands also, abdomen not sensitive. Uterus well contracted. Discharge normal and in sufficient quantity. No external injuries of the genital organs. Intestines empty.

On the first day injection gr. 1/6 hydr. benz., in the gluteus. 2nd day temperature 102.7, pulse 120, injection repeated. 3rd day temperature 100.9, pulse 112, injection repeated. 4th day temperature and pulse normal."

He states: "I have observed a great number of such cases and they all showed the same favorable results, with the exceptions of those in which the injections were given too late."

During the past year Siemerling has reported excellent results in the treatment of meningitis by injections of mercury as recommended by Quincke.

On page 259 of the March (1914) number of *Progressive Medicine*, Rugrah cites the excellent results obtained by Carlo, (reference 8), Singer, Maraliagno, and others in the treatment of rheumatism by the "Baccelli method," which consists in the intravenous injections of bichloride of mercury.

Conclusions: I believe that my results coupled with those of the distinguished foreign observers above mentioned and of my colleagues in the Naval Medical Corps, mentioned in this paper, demonstrates the superlative value of mercury in the treatment of the infections cited, and makes it strongly probable that its action in the case of all diseases of vegetable parasitic origin would be equally and as promptly curative.

The secret of success is the administration of the largest dose possible, at the earliest moment possible, after the onset of the disease.

REFERENCES.

1. At least two investigators have reported during the past two years, that when mercury is introduced into an infected animal that specific antibody is rapidly produced.

2. Three of these cases reported by P. A. Surgeon Lawrence M. Schmidt, U. S. N., in the *U. S. Naval Medical Bulletin*, for July, 1913, page 471.

3. *Medical Record*, December 2, 1911. The treatment of Tuberculosis and other Diseases of Vegetable Parasitic Origin by deep muscular injections of mercury.

4. Two cases reported by P. A. Surgeon Schmidt, one complicated by lobar pneumonia, and both by acute endocarditis; and one case by P. A. Surgeon T. W. Read, U. S. N., and one by P. A. Surgeon Wm. Chambers.

5. Eleven cases reported by P. A. Surgeon William Chambers, U. S. N., and one by P. A. Surgeon Reed.

6. *Medical Record*, February 22, 1913. The Treatment of Diseases of Vegetable Parasitic Origin by Deep Injections of Mercury.

7. *Berliner Klinische Wochenschrift*, October 20, 1913. The Immunization of the Blood against Septic Disease.

8. *Il Phliclinico, Sesione Practice*, October 5, 1913, page 1448. The Treatment of Rheumatism by Baccilli's Method.

DISCUSSION.

THE PRESIDENT: As Dr. Luce is not present to open the discussion of this paper, I will ask Dr. Pudor to comment upon it.

DR. PUDOR: Mr. President and Gentlemen—I am a bad man to comment, because it is almost out of my line. Of course, I have used the intramuscular injections of mercury a great deal, and I was induced some years ago, by reading a report of some army surgeon, to use the succinimide of mercury. I am sorry to say that my results at that time were not good. I likewise remember the case of a man with a very severe syphilitic lesion, where I used one grain every four days, and then shifted over to two grains of salicylate of mercury with very good results. I see now that the trouble was that I did not use enough of the succinimide of mercury. It has one beautiful quality in almost every case, namely: The patient has no bad results following it, that is, no pain nor discomfort at the seat of injection.

One thing the doctor spoke of, although he made no particular mention of it, is the care of the teeth. I doubt if one in fifty ever tells the patient to take care of his teeth while using mercury. I do not care in what way it is given, the patient should be warned that he must keep his teeth extra clean, and have some alkaline mouth-wash to use during the entire treatment. This will save a good deal of mercurialism, at least.

After reading this paper, I began to use the mercury salts in various diseases. Unfortunately, a large proportion of our skin diseases are unknown in origin; but there are some that are benefitted by the use of mercury. I also tried the succinimide in lupus vulgaris, again without much result. In the future I shall know better, and, instead of giving one-fifth of a grain, I will be apt to give two-fifths of a grain. I tried it in psoriasis, giving the salicylate in that case. The result was reasonably good, clearing up very much quicker than psoriasis usually does. I had other cases of lupus, and again I tried succinimide, and in one case there was decided improvement. In this case, I exceeded my good judgment by giving two-fifths of a grain instead of one-fifth, and I think the results were good, simply because I increased the dose a little bit. In ringworm of the body, which, of course, is a vegetable parasite, I tried it again, although that disease is easily cured in other ways; and, in that case, it cleared up with reasonable rapidity and without any local treatment whatever. So, undoubtedly, the use of it in skin diseases is very much

larger than I had any idea of. From the wonderful results that our essayist has reported, I see no reason why tuberculosis should not be as curable as the measles.

THE PRESIDENT: I am very sure that Dr. Wright will be very much discouraged if a paper of this kind does not promote discussion, and there are many present who ought to discuss it.

DR. WILLIAMS: Mr. President, and Gentlemen—It seems to me rather unfortunate, though I have no doubt entirely unpremeditated, that the audience should be invited to leave the room just previous to the reading of this paper. It seems to be a case of surgery versus therapeutics; but I doubt not that all of you, as well as myself, have listened with great interest to the reading of this paper. It is like what we hear very frequently—it seems too good to be true, and so we drop it. This reminds me of a remark that I wanted to make yesterday after the reading of one of the papers, but did not. When I was in New York studying medicine, one of the professors at one time said of a therapeutic measure: "Why this does this, I don't know, any more than I know why 40 grains of mercury will abort a case of pneumonia; but it will do it." Now that was so unusual and so wonderful that I doubt if very many of the students tried it; but I certainly have seen abortive results from large doses of mercury in pneumonia. It will bring the temperature down more quickly than anything else. If one gives 20 to 40 grains of calomel, the temperature the following day will go down to normal, almost always. I do not advocate this, because that is not my way of doing things, and because I know I would be laughed at, and I do not like to be laughed at; but I have no question that calomel introduced into the system in sufficient quantity is an antidote to very many bacterial diseases. I am very glad to have been able to hear the paper, and I congratulate Dr. Wright on his results.

DR. ROBINSON: Mr. President, a few years ago, large doses of mercury were recommended for pneumonia. What the doctor has just said reminds me that I was called to a case that was apparently rapidly dying from pneumonia, and I thought it a good time to try mercury. The people had given up their other doctor and called me in. I took a teaspoon, filled it with calomel, and put it on the patient's tongue myself, so I know he got it all. The next day when I went in—it may be that the time had merely come for the pneumonia crisis—but the pneumonia symptoms had all disappeared, and the patient very rapidly recovered. I took the teaspoon, filled it with calomel, and weighed it, and ascertained that the patient took 110 grains, without any effect whatever except apparently to cure the pneumonia.

Leg Ulcers.

An English surgeon is treating old ulcers of the leg with a spray of pure sulphurous acid, has done so for years, and gets excellent results, provided that the patients keep the limbs flexed and well supported on a chair or cricket. After the spray is used, strips of plaster well dusted in boric acid cover the ulcerated spots.

***MEDICAL INSPECTION OF SCHOOLS IN AUBURN.**

DR. H. E. HITCHCOCK, AUBURN, ME.

Mr. Smith has asked me to tell you of the results of Medical Inspection in the schools of Auburn and to suggest ways in which it may be made more effective.

The medical inspector covers a territory of approximately 75 square miles, including 19 country buildings and nine city buildings. During the first visit, an inspection of each throat, as the line of pupils approach the inspector who is seated in a well lighted corner of the school room, reveals those cases of enlarged tonsils and probable adenoids threatening or causing ill health. I say probable adenoids because examination for adenoids in the school room is impracticable where the throat mirror can not be sterilized after use in each case. The eye takes note likewise of enlarged lymphatic glands, obvious heart disease, anæmia, and any one or more of the many defects or signs of disease that may be seen without removing the clothes. These are made note of and reported to parents by mail.

Inspection of sanitation follows; the drinking water, the condition of the water cooler, which is a double walled metal container with the space between the walls filled with ground cork, covered and supplied with a faucet, and, in the country schools, the individual drinking cups, which in some schools are kept inverted upon erect pegs inserted upon a shelf and are protected from dust by a shelf above it, so that the cup's edge may not be contaminated. Teachers are not allowed to leave their own cups where pupils may use them. Examination is also made of towels, soap and basin; the basin alone being common to all.

Each day fresh earth, sawdust or ashes is thrown into the out-house vaults. The seats are kept clean, and the teacher is held responsible for any negligence.

Teachers are coming to recognize the value of good ventilation in the school room. The difficulty of obtaining change of air without draughts has been a stumbling block. Teachers accustomed to overheated homes allow the schoolroom to become too warm, and plead the danger to the pupils of draughts when censured by the inspector. To meet this objection, schools are being equipped with an inclined board placed in front of the opening of the raised window, which deflects the air upward. Nothing has proven so satisfactory short of modern rotary fans and air flues.

*Read before the meeting of School Superintendents of Maine at Castine in July, 1914.

The lighting of district schools is fairly satisfactory. The occasional glare from a blackboard exposed to cross light is corrected by the use of adjustable shade rollers which bar objectionable light without darkening the room. Where slate blackboards are used, the eyes of pupils are saved much strain and irritation.

In the cleansing of school rooms, desk-tops are more often neglected than floors or windows. Desk-tops soon become filthy if neglected and should be washed at least once a week.

School-room sanitation is in direct proportion to the efficiency of the janitor and this is a variable quantity.

Cases of contagious or infectious diseases are in the nature of emergencies and are treated as such.

The heating of one-room buildings presents difficulties which have not yet been satisfactorily overcome. Better results are expected from the gravity system than have yet been attained, by observing one or two essentials of the problem as yet overlooked. As these buildings are heated by stoves, the rational place for the stove would seem to be near that wall most exposed to cold winds. The temperature of a room may be high and yet its air impart a sense of chill because although air is a nearly perfect non-conductor of heat, radiation takes place through it readily. We may enter a room having a temperature of 75 degrees with walls at 50 degrees and feel chilled, simply because heat is rapidly radiated from the body through the air to the colder walls. Furnace heated houses give frequent instances of what seems to be the disposition of the heat to leave the exposed end of the house unheated. Sufficient dead air space should be left between walls.

Our most recently constructed district school building faces south-east, is of one story, heated by stove and lighted by windows at either side and rear. A back door admits to a sheltered walk with partition and walls of lattice work leading to privies above water tight concrete vaults, projecting enough to the rear to admit of a bulk head and ready access when cleaned. Blue vitriol is added frequently to the fluid contents of this vault thus eliminating the typhoid possibilities of the unclean fly. Storage space for fire wood could be economically placed at one, or either side of the walk in the rear, thus dispensing with the need of so long a building by several feet.

Before leaving the school building the teacher is asked if there is any thing she wishes to call attention to such as borderline cases of eye defects, where the teacher, in her testing of sight with the Snellen Test Type, has failed to discover cause for the suspicion she has had

owing to inattention, mental deficiency, facial expression or attitude of the pupil. Other defects the teacher is urged to make note of, as the regular visit of the medical inspector is but once a term and her familiarity with the pupils enables her to observe what may escape the inspector during his visit. To facilitate her intelligent co-operation she is supplied with a reprint of a small pamphlet issued by the Massachusetts Board of Education under the title of "Suggestions to teachers and school physicians" which makes uniform the information for all teachers and defines their responsibility.

The remainder of the visit is devoted to a short talk to the pupils about some one of the practical phases of preventive medicine, telling them how to avoid infection, deformity and disease, explaining what a cold is and what it may lead to, urging them to cultivate habits while in school that will protect them in later life.

City schools are visited once a month. Every pupil is examined once during the school year, and each one upon entrance from outside of Auburn. Teachers are expected to be alert and call the inspector whenever occasion arises. At other times pupils are sent to the office of the inspector.

Parasitic diseases are hard to suppress. Head lice, itch and ring worm are common and persistent because of irresponsible, worthless parents beyond reach of any legal proceeding. In this connection a school nurse would be invaluable and offers about the only solution available.

The detection of contagious disease devolves largely upon the teacher, as the inspector is only called in to verify the teacher's finding and order exclusion. Anything else would call for daily visits from the inspector. Frequent reference to their book of suggestions, and practice makes some teachers quite proficient. Both the Board of Health and the Medical Inspector safeguard the return of the excluded pupil.

Nothing is said by school inspectors concerning venereal disease. It is politely ignored, because of our helplessness, but it is there and contagious. I believe that no public toilet seat should be entire, but of the horse shoe form, open in front. It is the only safeguard we can offer. The State supplies test cards for testing eyesight and for recording deafness and eye defect, which is left to the teachers. The desirability of leaving this to teachers may be questioned but the results are good. Improvement is needed in the means of correction rather than in the detection of errors of hearing and vision, and here municipal medical charity in the form of free eye glasses, free dentistry, medical treatment and free lunch are crying needs.

In our community, free glasses would suffice. Lunch is served at a nominal charge by one of the cooking classes of the domestic science course in the grammar school, and meets a need.

There is but little difficulty in detecting physical, mental and sanitary defects but it is much more difficult to get them corrected. The inspector is not allowed to treat these cases not in his own medical practice, and parents are often ignorant, indifferent or poor. They should be instructed, their interest stimulated and the poor helped.

We are making arrangements for dental inspection. Local dentists have volunteered their services to whom a room will be assigned in one of the central buildings, where pupils will be examined at stated intervals.

Absorbent paper towelling is distributed to the city schools, and the lavatories have liquid soap fountains. The individual drinking cup has given place to the sanitary bubbling fountain.

Old style seats are being replaced with modern adjustable seats.

The stoop shouldered deformity, curvature of the spine, and eye defect, due to obstructed venous circulation may be largely avoided by properly adjusted seats and desks.

A somewhat radical departure from the ordinary type of district school is contemplated and shown in the plans of our new Danville schoolhouse, which is to have a basement containing the heating apparatus.

There are advantages to having the toilet in the basement that every physician who has a country practice will appreciate.

Throughout the country-side are numerous cases of ill health due to the distance and discomfort of the out-house in winter, inducing procrastination which in this case is the thief of health and applies to children as well as to their elders.

The relatively low standards and prejudices of the rural districts retard modern sanitation, and are reflected in the lesser progress of country pupils as compared with those in city schools.

A means of reaching them, as suggested by Supt. H. H. Randall of Auburn, appeals to me in connection with the need of a school nurse. As I believe the two could be found in the same person, both offices demand tact and intelligence: The school nurse could devote her spare time to gaining the acquaintance of her country charges and through them their parents, and from the vantage of confidence thus gained, introduce the purpose and character of changes desired.

The clerical work of the inspector is reduced to a minimum. A file card is filled out for each room at each regular visit, recording the grade, date, school, number of pupils examined, for what defects, num-

ber excluded, cause, number of notices sent parents, number of cases in which remedy was undertaken by parents, sanitary recommendations and character of instruction given. In addition to this, we purpose using a physical history card, to accompany the pupil from grade to grade, recording his condition throughout his school life.

The postal card sent to parents, notifying them of physical defect found in their child and urging treatment concludes the clerical work of the inspector.

Means of increasing the efficiency of medical inspection of schools must be largely in the direction of selecting and supervising the medical inspector himself. Some cities require duplicate or triplicate reports, as if the price of ink might discourage dishonesty.

The medical inspector should be invested with authority in his department and be granted discretion in the expenditures involved. As the stimulation of appreciation assures good work so adequate pay is a mighty factor in getting results.

Finally I would suggest a state supervisor of medical inspection of public schools and the standardization and systemization of such work throughout the State.

A NATIONAL DEPARTMENT OF HEALTH.

It was not so many years ago that the idea of a municipal Board of Health was particularly offensive to the people. It was argued that the rights of the individual were infringed upon if he were required to clean up his back yard or to put the plumbing of his house in order. Very likely this claim is true, and that it is the undeniable right of any person to keep his premises or his person as clean or as dirty as he pleases.

But what is true of the individual in a state of isolation is not true when he is brought together with others in communities. Here the common good takes precedent of the individual will. Hence the growth of boards of health and the gradual enforcement of sanitary laws. These are never popular, except in the facing of an epidemic, and the officials, whose duty it is to enforce them, are often blocked in many irritating ways.

Still there can be no question that municipalities are better off with than without boards of health. So evident has this been to legislators that in most parts of the country, municipal boards of health are supplemented by State boards of health.

It is now proposed and has been for several years to supplement the State boards of health with a national board of health, to be known as a Department of Health, the secretary of which should be a physician and of course a member of the President's cabinet.

The "Southern Medical Journal" of Mobile, Alabama, has an editorial on this subject in its September issue, with the most of which we are in hearty accord. The "Southern Medical Journal" even goes

so far as to name the man for the job, viz: Surgeon-General Gorgas, the sanitarian who made the Panama Canal possible. It would indeed be a fortunate thing for the country if Surgeon-General Gorgas had the authority to safeguard its health.

"Hail, Router of the Plague of Flies! Hail, Isthmian Conqueror true!

Gorgas, to that wise Goddess dear, the Gorgan death who slew!"*

But before selecting the man for the place, it would be wiser to create the place itself, and that has yet to be done. Many excellent plans have been frowned upon by Congress and this is one of them. We all remember the Owen Bill and the efforts during the last Congress to pass it.

There are many reasons why a National Department of Health would justify itself, but only a few can be mentioned here. In the first place, the medical energies of the government would be co-ordinated, and, not as now, run independently. For example, there should be a government laboratory, where original work could be done by members of the army or navy medical corps, the United States Public Health Service and the Scientists of the Bureaus of Animal Industry and Entomology, Biological Survey and Chemistry of the Department of Agriculture. The medical officers intrusted with the enforcement of a quarantine or the stamping out of an epidemic could learn much of the habits of disease-spreading rodents and insects from association in such a laboratory with the experts of the Department of Agriculture.

Such a laboratory would naturally make bacteriological and chemical analysis as requested by the different members of the medical corps of the different services. A National Department of Health would have authority only where the national government has authority, i. e., in the District of Columbia, government reservations, (including army posts, navy yards, etc.,) government ships (as army, navy, revenue cutters, coast survey, etc.,) navigable rivers and harbors and interstate common carriers (viz: railroads and steamboats.)

It is possible, therefore, for the federal government to exercise its authority over the coast lines of the country, its rivers, railroads and steamboat lines. In other words, to quarantine the country, when necessary, against the outside world or one or more States against its neighbors.

Furthermore, it would not be impracticable for a National Department of Health, using these same police powers, to safeguard the purity of river waters from contamination with mill waste and sewerage, thereby very materially reducing the spread of such diseases as typhoid fever and diarrhoeas.

*Journal of the American Medical Association, June 13, 1914.

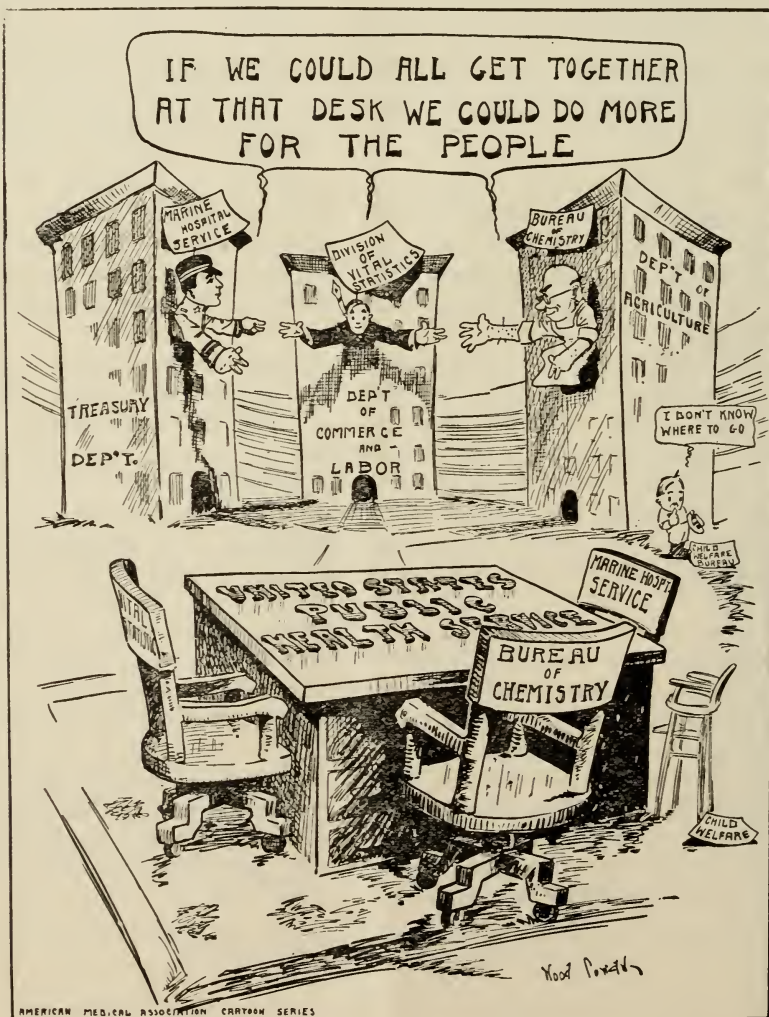
Also, it might transpire that a National Department of Health would be given authority to stamp out epidemics wherever they occurred. This would open the way for the efficient handling of many diseases, such as malaria, hook-worm disease, pellagra, plague, spotted mountain fever, etc.

Finally, there is the question of the enforcement of the Pure Food and Drug Act, which would naturally come under the care of such a department.

The last reason of all, is one peculiar to the medical profession. Is it not now time that as a body or an estate, we were represented in the council of the nation and, in particular, in the President's Cabinet? The lawyer, the farmer, the business man, the workman, all have their representatives there. Why not the medical man? Are our services to the body politic less important than these?

Other countries see fit to call their medical estate into the council of the nation. Why not ours?

C. R. B.



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Editorial Comment.

Duty of the State toward the Early Environment of the Child.

This topic took much time and gave rise to important discussions at the last meeting of the British Medical Association in July. Five papers were read, the first being on the care of mother and child before the child's birth to prevent infant mortality which in some parts of the country is enormous. Consultation centres for expectant mothers were most desirable. Care of the mother after birth of the child was also insisted upon. No woman should be permitted to work in a factory within a month from the birth of the child. Under the mother's care the infant had a better chance for life and to become a citizen of the Kingdom. Health-visiting should include visits on women after their delivery so as to see if their physical condition and surroundings were good.

Infant clinics and Milk Depots formed an interesting focus for discussion. Cliniques for infants should be followed with those for children between one and five years of age, for practically nothing is now done for children emerging from measles, whooping cough, mumps and so on. Rickets, too, are likely to develop at this age, and should be carefully watched and prevented.

The beginning of school life at 5 gives the State its first opportunity to look out for masses of children, and in the schools the State could interfere advantageously. Much of the development of the child depends on the condition of the schools in the early years of study.

From this point the discussion went on to child labor, and it is amazing to learn that 40,000 children in one district in Great Britain between the ages of 11 and 13 are studying part of the day and doing hard labor the rest of the day. Many children at 14, work as hard as their parents, to support the rest of the family and themselves. Premature wage-earning may be inexcusable, from poverty, but it must be limited if the nation is to advance. Compulsory attendance on school up to 16 would do much to prevent this condition so dangerous to the nation as a whole, for early labor stunts the growth of the child.

Furthermore, there is a demand for regulated recreation. The existence of moving pictures proves the craving for pleasure, and provides the mental need for refreshment and a change of scene and surroundings at the end of a day of work. But all recreations should be safeguarded lest idleness result.

The eyes and sight need supervision, and here we emphasize the good work which our country is doing for Conservation of Vision. Nothing, on the contrary, so much shows the bad judgment of our legislators, as in legislating optometry to be practiced by uneducated men. Every child with imperfect sight, sore eyes, crossed eyes, and reddened lids should be sent by the State to educated physicians. So too, if physicians were allowed a grant from the State for spectacles, it would be a great advancement for the defective children. But the efforts of physicians are now annihilated by being compelled to send their prescriptions to opticians, who do as good work as they please, and fit the frames as seems good to them, and get the profit.

Finally, the dental aspect of the duty of the State toward children received much mention, and the connection between the teeth and the health, the digestion, the nourishment, and the eyes and the ears was brought forward emphatically as a necessary part of the campaign for State Care of the Children.

Those who are studying the care of the children of the nation as a part of social service will find valuable suggestions in the papers printed in the British Medical Journal for August 15, 1914.

Nitric Acid Fumes.

The recent accident in New Jersey, when a carboy of nitric acid was broken, thus exposing some 100 or more people to the fumes, calls to mind a similar episode occurring in Portland in February, 1913, when a carboy was broken in the basement of a drug store in Portland, resulting in the death of two firemen and serious illness on the part of others exposed to the fumes of the acid.

A striking feature in these cases, particularly that of the firemen who were exposed, was that they were taken ill some few hours

after the exposure and that the illness went on rapidly to a fatal termination. A review of the literature of that time on this subject demonstrates that similar observations were made where accidents of this kind happened, and that a careful study of the conditions showed more or less changes in the mucous membrane of the lungs, and the blood cells, in some instances through the caustic effect of the acid acting directly on the mucous membrane, while, on the other hand, the oxides of nitrogen were thought to be the active gases which produced change in the hemoglobin of the blood.

We have endeavored to find out something in regard to the outcome of the people exposed in the New Jersey accident. Up to the present time there has been about 25% fatalities resulting from this exposure and it seems time that something should be done along the line of preventing the handling of this deadly poison in such a manner that its breaking will expose so many people to its deadly influence.

Northeastern Medical Journal.

Owing to inquiries coming in in regard to the alliance of our State Journal with the Boston Medical and Surgical, it seems advisable to make the following statement at this time. The latter journal is owned by three prominent members of the Massachusetts Medical Society, who have no desire to receive any returns from the journal, but wish to make it a strong representative journal and agreeing to turn all income, over and above maintenance, to making a larger and better journal.

They have communicated with the other New England States, inviting them to join in making this a New England Journal. At present it is the official organ of the Massachusetts Medical Society and they are desirous of making it the official organ of the other New England States.

In our reply to the journal, we suggested three measures. First, that the name, "Boston Medical and Surgical Journal," be changed to New England or North Eastern Medical Journal. Second, that there should be an equitable representation from each State on the managing and editorial boards. Third, the advisability of its being owned and operated by the States interested. Dr. Joel Goldthwait, who is acting in behalf of the Boston Journal, assures us that they will concede the first point and are anxious to discuss the remaining two, so that, in the middle of October, representatives from the Maine Journal will hold a conference with them in Boston and come to some understanding. In the meantime, we earnestly hope that those who have not yet answered the letter, in reference to this alliance mailed some time ago, will do so at once so that we may have some idea as to the

opinion of the members of the Maine Medical Association on this question.

False Warning of Opticians.

A well known optical firm is selling to opticians a card which advises the public to avoid the use of "Drops" in eye examinations on the ground that they are poisonous and dangerous. The card is put into an envelope with a red inscription on the outside which says, "Poison. Beware! Don't allow anybody to put drops into your eyes. They are dangerous and poisonous." "Aside from the intent to keep people from consulting reputable physicians, this move on the part of the opticians will work to the harm of the people," says the Journal of the Indiana State Medical Association. Such a warning may be taken, by people, that even diseased eyes should not be treated with drops, and if various eye diseases are so neglected much harm will ensue.

Moreover, it is an undeniable fact that the refraction of the eyes in the young cannot be measured properly without the suspension of the accommodation, so that lenses fitted without such use of drops is largely guess work. These same opticians advertise that they practice Retinoscopy, yet it is well known that retinoscopy cannot be performed without the use of the very "Drops" which the opticians assert to be poisonous.

The prescribing of lenses for the young, especially, should be in the hands only of skilled physicians.

Finally, it is certain, that opticians with their very scant and easily obtained knowledge, are not helping their own cause by discrediting the works and practice of skilled oculists who study the eye in health and in diseases and from whose knowledge these very opticians have stolen whatever they may know of eyesight testing.

Roentgen and his Famous Gold Medal from the Royal Society of Great Britain.

It will be remembered that soon after the famous discovery by Röntgen of his marvellous X-Rays, the Royal Society of Great Britain acclaimed him as a magician and rewarded his discovery with a magnificent medal of Gold, valued as mere metal at about \$300. We now learn with much regret that disgusted, amazed, and outraged at the infamous manner in which England has assaulted Germany, Röntgen will have nothing more to do with the magnificent medal, but has thrown it away in disgust as so much money to be distributed for the benefit of the Red Cross in Germany. This step stands on a level with similar instances of today amongst the scientific and learned sages of Germany and only goes to show how the people have been taught erroneously by the newspapers of the Fatherland.

Correspondence.

Dear Doctor:—The following news-item may prove of interest to your readers:

"The Travel Study Club of American physicians, which made a successful study tour of Europe last year, has completed the plans for its 1915 study tour to the A. M. A. meeting in San Francisco, Honolulu, Japan, the Philippines, China, with optional return via Siberia and Europe, or via Canada. This being the first party of American physicians ever visiting the Far East and the new possessions of the United States, a most cordial welcome can be expected by authorities and members of the medical profession. The Travel Study Club would like to make its enterprise as representative as possible and asks all those interested to communicate with the Secretary, Dr. Richard Kovacs, 236 East 69th Street, New York."

Thanking you for your kindly interest, I am,

Yours very truly,

RICHARD KOVACS, *Secretary.*

The Medical Inspection of School Children and Its Sequels.

To the Editor of the "Westminster Gazette:—"

Sir—We have achieved the medical inspection of the Council school children—may I suggest certain sequels needed in this matter?

1. The medical officers carrying out this inspection should, in my opinion, be required in the near future to have a diploma in Public Health, and after a certain date no appointments should be made without such qualification. It greatly widens out their point of view.

2. I further propose to make the school medical officer responsible for reporting on the fitness and sufficiency of the clothing and boots of the children he or she inspects.

Until we come face to face with facts in this matter our children will remain in the disgraceful condition in which we at times find them. There is no difficulty whatever in sending in such reports, and certain good would result.

3. *Sex Instruction.*—It is to these trained medical officials I would delegate the sex instruction of the grown-up children. It comes perfectly within their function, and would greatly relieve the class teachers on whom it is now and then suggested it should fall.

4. In my opinion also, the medical officer should give health lectures to the children, explain why he inspects them, and so make them his allies in the path to betterment. Printed notices as to clothing or personal hygiene would assist the propaganda and be given to the children by the lecturer.

5. *Schools for Mothers.*—In my opinion the area of the district school should generally be the area of the local schools for mothers or parents.

Real gain would come to the nation if the parents could be brought to their children's school and learn there the lesson of their children's care. Gross ignorance is the real enemy to all social progress. In my

opinion the paid school medical officer should be required to teach the parents the care of their children, and I certainly see no reason why schools for fathers should not also be formed. By instruction we make the parents allies, and not the enemies in the fight for betterment.

6. One last suggestion I make. No educational system will be complete that does not provide a comfortable home near the school for its head master or mistress and also for some of the senior teachers. Just as the local parson or the local doctor has to live near his work, so the responsible district school teacher should be well housed and live amongst his people "by order," and be known by them. The school is the lighthouse of humanity. Let the lighthouse keeper live near his work and he will gradually become a greater factor than he is today in the building up of a new England. Any way, parents could learn to know and honor him. The unawakened democracy of 1870 failed to insist on houses and gardens for the teachers. Let us gradually remedy their great omission. I am, sir, yours.

GEORGE J. H. EVATT, *Surgeon-General*.

Junior U. S. Club, London, August 1.

Cooperation in Public Health Administration in Small Communities

The importance of the small community health office is emphasized editorially by *The Journal of the American Medical Association* for October 3. *The Journal* believes that the limitations and inefficiency of the health of the small community is recognized by public health workers and probably constitutes one of the greatest single obstacles to the general advancement of the public health movement. The strategic importance of the local health office in the warfare on disease must be obvious. With an inefficient administration at this point the citizens are at all times exposed to the danger of attack and are deprived of that protection which modern sanitary science is enabled to throw about them. So far as rural health conditions in many sections of our country are concerned, the scientific work of the last quarter of a century might as well have never been done. This condition is fundamentally due to two facts: First, the science of public health is a complex of specialties, to be mastered, even in principle, only by an expert with years of training and to be efficiently administered, in its various branches, only by a group of trained workers under such expert supervision; second, a small community cannot financially afford the services of such a staff. The situation has one redeeming feature; the small town which cannot afford a trained staff requires but little of the time of each of its members, so that co-operation among towns is plainly indicated. The minimum group for a complete and efficient health office is necessarily a complete, though diminutive, city office and cannot be farther subdivided. If this group be too large for the needs and financial resources of the small unit of population, there remains the necessity to broaden the territory.

With a view to the overcoming of these deficiencies in the health work of small communities, and in an endeavor to find a practical

solution of the difficulties, an experiment in co-operative public health administration was undertaken under the auspices of the Department of Biology of the Massachusetts Institute of Technology. This important work was under the immediate supervision of Prof. Earle B. Phelps of the Hygienic Laboratory, U. S. Public Health Service, but at that time on the faculty of the institute. The report of the work has just appeared as a publication of the Public Health Service (Pub. Health Reports, Sept. 25, 1914), and for those interested in the improvement of the health affairs of small urban and rural communities will be a most illuminating document.

The most interesting feature of the work, next to its promptness and thoroughness, is the very low cost at which it was carried out. Exclusive of plumbing inspection, which is not properly a board of health function, the total cost of the work was 19 cents per capita per annum. The total population served was 62,000 persons, 32,000 of whom received only the milk inspection service. The work which was begun as a practical experiment in the science of public health administration has been continued by the towns interested on a considerably enlarged basis with a sufficient appropriation to make it self-supporting and, what is more important than all else, the cordial support and backing of an enlightened public opinion. The great value of the report is to show, in a convincing way, that the problem of providing for the health work of small communities can be taken care of in a feasible and satisfactory way at a reasonable cost. It is hoped that other communities will take up this movement.

Resolutions passed at Third Annual Meeting of the Alienists and Neurologists.

At the Third Annual Meeting of the Alienists and Neurologists of the U. S. held under the auspices of the Chicago Medical Society, for the purpose of discussing Mental Diseases in their various phases, July 13-17, 1914.

The committee on the Prevention of Insanity, reported the following resolutions, which were unanimously adopted;

Whereas, it is well recognized by alienists and neurologists the world over that certain major factors are the chief causes of physical conditions accompanied by mental derangement and deficiency, and

Whereas, these major causes are largely, if not wholly, controlable and eradicable, and

Whereas, these major causes are alcoholism, habit producing drugs, venereal diseases, work in unsanitary and unhygienic surroundings, and hereditary influence including the immigration of the physical and mental unfit.

Therefore, be it Resolved, First; That we recommend to the proper State authorities, the absolute control of the sale of alcohol until such time as actual prohibition be enacted.

Second: That the sale of all habit inducing drugs be strictly regulated in all States of the Union.

Third: That municipal or State control of venereal diseases be established, with proper treatment for indigent patients, to the end that the spread of syphilis and gonorrhea be prevented.

Fourth: That proper, special hospitals for the care and treatment of alcoholism and drug addictions be established.

Fifth: That municipal, State and national inspection of labor conditions be regularly maintained and child labor abolished.

Sixth: That no known defective, dangerous to himself and to others, should be permitted to have unrestricted liberty.

Seventh: That adequate teaching of the principles of heredity and sex life be initiated and fostered in the home with the view to its introduction into the curricula of schools—above the grammar grades, this instruction, to be given to the sexes separately.

Eighth: That the various States pass reasonable and universal marriage laws, that will be reciprocal, in preventing the marriage of the physical and mental unfit.

Ninth: That a Psychopathic Laboratory be connected with the Criminal Courts, Common Schools, Railroads, Transportation Companies and Public Service Utilities, responsible for the actual safety of the general public should have their employees regularly examined as to their physical and mental fitness.

Tenth: That, inasmuch as State, county and city public health institutions should have as their superintendents, men of highest qualifications, who may devote their best efforts to their tasks, we recommend that all such positions be subject to civil service examinations.

Eleventh: That in addition to the above, we recommend a nation-wide campaign of education conducted through the public press, university and medical schools, boards of health, State, county and city boards of education, women's clubs and other proper educational mediums, upon the true significance of the development—physical, mental and moral—of the individuals and the race and finally, we recommend that a committee be appointed to promote the enactment of the above resolutions.

Propaganda for Reform.

Administration of Fruit Acids.—The administration of the salts of the ordinary fruit acids is useful whenever it is desired to increase the alkalinity of the blood and diminish the acidity of the urine. Important investigations indicate, however, that it is scarcely feasible to produce any very marked effect on the alkalinity of the blood in this manner. If the physician believes that the alkalinity of the blood is an important factor in the recovery from gout and rheumatism, the administration of the salts of fruit acids is appropriate. Citrates

should be preferred to tartrates, for the latter are imperfectly converted to carbonates and, when given in large quantities, may cause irritation of the kidneys. (Jour. A. M. A., Aug. 1, 1914, p. 420.)

Veracolate, Marcy & Co. — Veracolate is a proprietary said to consist of the salts of the bile acids, sodium glycocholate and sodium taurocholate, with cascara and phenolphthalein. While bile salts are said to increase the secretion of bile, it is doubtful whether this increase in the secretion of bile is of value in the treatment of gall-bladder affections. There is no occasion for the use of bile salts combined with fixed quantities of cathartics, which should be added only when they are needed. The advertising claims for Veracolate show a tendency to extravagant statements. (Jour. A. M. A., Aug. 1, 1914, p. 420.)

Toxicity of Camphor. — A case is reported in which an 18 month old child was given, after a meal, a teaspoonful of camphorated oil (linimentum camphoræ) by mistake. While this dose must have contained about 15 grains of camphor, no untoward symptoms were observed. (Jour. A. M. A., Aug. 15, 1914, p. 579.)

Assimilation of Calcium Phosphate. — Extensive experiments have demonstrated the availability of calcium phosphate for the bone formation of growing infants. This is a further proof of the power of the human organism to utilize inorganic substances. (Jour. A. M. A., Aug. 15, 1914, p. 581.)

Poisoning by Boric Acid Dressing. — While wet boric acid dressings are harmless, this is not true of dry, powdered or crystallized, boric acid. Alarming symptoms resulted from the application of dry boric acid to wounds caused by a burn. (Jour. A. M. A., Aug. 15, 1914, p. 593.)

PoDoLax. — A report from the A. M. A. chemical laboratory shows that PoDoLax, claimed to be "Podophyllin with the gripe taken out" is a phenolphthalein nostrum. PoDoLax is being extensively advertised by the E. E. Sutherland Medicine Company of Paduoa, Ky. From the analysis made, it appears that PoDoLax is an aromatized syrup, containing phenolphthalein in suspension and fortified by the addition of an extract of senna. Its laxative action is due chiefly to the phenolphthalein of which each dose contains about 1.8 grain. Podophyllin was not found to be present. (Jour. A. M. A., Aug. 15, 1914, p. 595.)

Shortage of Drugs. — In view of possible drug shortage, physicians should bear in mind that many proprietary foreign preparations are made and sold in the United States under their descriptive names, thus dionin as ethyl morphin hydrochlorid, urotropin as hexamethylenamin and diuretin as theobromin sodium salicylate. (Jour. A. M. A., Aug. 22, 1914, p. 692.)

The radio-activity of Saratoga Springs Water. — An estimation of the radio-activity of Saratoga Springs Water, made by the U. S. Bureau of Mines, shows that the activity is due in the main to radium emanation, which is therefore readily lost, and not to dissolved radium salts. The total activity of the waters is rather low, that of the Crystal Rock spring, though not exceptional, is considerably above the average. The activity of different springs varies widely, some being more than twenty times as active as others. A similar variability is known to exist at Hot Springs, Ark., but only the vaguest information has been made public by our government. (Jour. A. M. A., Aug. 29, 1914, p. 788 and 795.)

Radium in Cancer. — Radium can be used successfully to destroy growths on the surface whose entire extent can be exposed to its energy. Extensive growths involving deep structures and disseminated growths are beyond its control, and there is no reason to believe that they will ever be brought within its control. The effects and the limitations of radium in the treatment of cancer are the same as those of the Roentgen ray. (Jour. A. M. A., Aug. 29, 1914, p. 787.)

Pertussis Vaccine. — The Bordet-Gengou bacillus is recognized as the cause of whooping cough and a vaccine prepared from it is used with success, although it is the general experience that when a child is already in the stage of incubation, the vaccine will not prevent the development of the disease. (Jour. A. M. A., Aug. 29, 1914, p. 796.)

Scarlatina Vaccine. — The so-called scarlatina vaccine is said to consist of killed streptococci from scarlet fever cases. While the infectious agent of scarlet fever has not been established, the close association of streptococcus with scarlet fever has been considered a warrant for the use of antistreptococcus serum, and various vaccines prepared from this organism, in the treatment of scarlet fever. (Jour. A. M. A., Aug. 29, 1914, p. 796.)

New and Non-Official Remedies.

Since publication of New and Non-official Remedies, 1914 and of the supplement to New and Non-official Remedies, 1914 (July 1, 1914) the following articles have been accepted for inclusion with "N. N. R." Antiseptic Supply Co.:

Stypstick Applicators, Alum 75 per cent.
Arlington Chemical Co.:

Arlco Urease.

Fougera & Co.:

Electrargol for Injection, 10 Cc. Ampules.

Hynson, Westcott & Co.:

Urease - Dunning.

H. K. Mulford Co.:

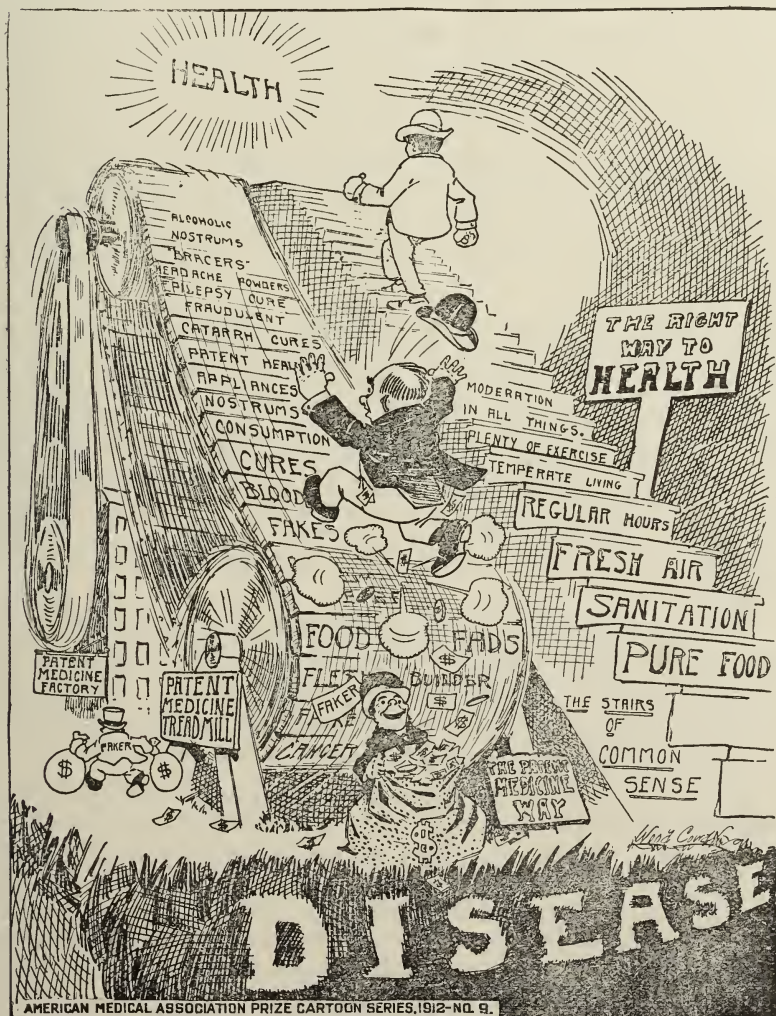
Hypodermic Tablets of Emetine Hydrochloride.

Waukesha Health Products Co.:

Hepco Flour, Hepco Dodgers, Hepco Grits.

E. Fougere & Co.

Electrargol: At the request of the manufacturer, Comar & Co., Paris, the Council has recognized E. Fougere & Co., New York, as the American selling agents for the product. Also in view of information received from Comar & Co., it has modified the New and Non-official Remedies description for Electrargol to indicate that this product now contains the equivalent of 4 per cent of metallic silver.



AMERICAN MEDICAL ASSOCIATION PRIZE CARTOON SERIES, 1912-NO. 9.

WHICH ARE YOU TAKING, THE STAIRS OR THE TREADMILL?

County News.

CUMBERLAND. PORTLAND MEDICAL CLUB.

The sixth meeting of 1914 was held at the Columbia Hotel on the evening of September third.

Cases were reported by Dr. Addison S. Thayer and Dr. Stanley P. Warren.

The paper of the evening was by Dr. Joseph B. Drummond, his subject being "Syphilis; Its Diagnosis and Treatment." He emphasized the importance of early diagnosis by dark-field smears from the initial lesion, with immediate treatment by salvarsan and the mercurials. The necessity of long continued treatment was also forcibly brought out.

The discussion of the paper was led by Dr. E. E. Holt, Jr., who gave detailed reports of twenty-five cases treated with salvarsan by Dr. Drummond.

ROLAND B. MOORE, *Secretary.*

KENNEBEC.

The quarterly meeting of the Kennebec Medical Association was held at the Elmwood, Friday evening, with a dinner attended by the following members: Drs. Wellington Johnson, R. C. McKay, R. H. Stubbs, O. C. S. Davies, S. J. Beech, G. I. Campbell, S. E. Vosburgh, F. C. Tyson of Augusta; B. P. Hurd, T. E. Hardy, C. W. Abbott, Henry W. Abbott, J. E. Poulin, J. Frederick Hill, Frederick T. Hill, E. P. Fish of Waterville; H. A. Milliken of Hallowell; V. E. Totman of Oakland; C. H. Leach of South China, and Dr. Walker of North Vassalboro.

The paper on "Dementia Præcox" was read by Dr. F. C. Tyson, superintendent of the Augusta State Hospital for the Insane. It was of unusual interest, showing how one of the common and formerly hopeless forms of insanity, by recent methods of study and observance has been reduced in frequency and arrested in severity.

At the business meeting, action was taken approving the suggestion of an alliance with the Boston Medical and Surgical Journal.

WELLINGTON JOHNSON, *County Editor.*

FRANKLIN.

On June 19 and 20, a number of members with their wives and invited friends, took an automobile trip to Stratton and Rangeley, stopping over night at the Rangeley Lake House. Every one reported a fine time and some found the fishing good.

On September 24, the regular meeting was held at Wilton. After dinner at the Blue Mountain Inn, the meeting was held at the Blue Mountain Camps.

Dr. O. B. Head of New Sharon read an interesting paper on "Constipation." Dr. C. H. Hunt read a paper on blood pressure and the action of different drugs which was most interesting and instructive.

G. L. PRATT, *County Editor*.

OXFORD.

OXFORD COUNTY MEDICAL SOCIETY.

The quarterly meeting of Oxford County Medical Society was held at Needham's Hotel, Mechanic Falls, on September the 28th at 10.45 A. M.

Dr. Richard Fitch Chase, a stomach specialist who has recently settled in Portland, and a former professor in Harvard, read a paper entitled "The Therapeutic Value of Some Digestive Preparations."

Members were requested to bring in some interesting clinical cases, not merely the history, but the patient as well.

D. M. STEWART, *County Editor*.

YORK.

The 78th quarterly session of the York County Medical Society was held in York at the Norton Inn, Wednesday, October 7. Business meeting in the forenoon; dinner at 1 o'clock. Paper, "Syphilis," by Dr. Gustav A. Pudor, Portland. Paper, "Intestinal Stasis as viewed by Sir Arbuthnot Lane of London," by Dr. Eugene D. O'Neill, Biddeford.

ARTHUR L. JONES, *Secretary*.

Personal News and Notes.

The meeting of the American Academy of Ophthalmology and Oto-Laryngology will be held in Boston, October 19-21, 1914.

Dr. D. W. Wentworth of Sanford, ordnance officer attached to headquarters of the Coast Artillery corps with the title of captain, at Auburn, Thursday, September 24, established what is believed to be a world's record by making 94 consecutive hits at a "bobbing" target at 25 yards, quick fire. He also captured first place in the 50 and 25 yard rapid fire pistol matches, and the 500 slow fire match.

Dr. Wentworth is considered one of the best shots in York County and has made some good scores since he has been connected with the Maine Coast artillery.

Dr. James D. Clement, who has been located in Portland, is now in Orono, Maine.

Dr. Adam P. Leighton, Jr., of Portland, was elected a Fellow of the American Association of Obstetricians and Gynecologists, at the recent annual meeting held in Buffalo, N. Y.

Dr. Adelbert Millett of Belfast, Waldo County, Dr. W. N. Price of Richmond, Sagadahoc County, and Dr. C. E. Wasgatt of Deer Isle, Hancock County, have been elected representatives to the State Legislature.

Dr. H. M. Swift has moved his office from the Trelawney Building to 30 Deering Street.

Dr. Richard M. Chase of Boston, Mass., has located in Portland and will have his office at 30 Deering Street. He will limit his practice to diseases of the stomach and intestines.

Dr. John W. Nichols of Farmington has just returned, much improved, from a trip to Mt. Clemens, Michigan, where he was treated for rheumatism.

Dr. E. E. Shapleigh of Kittery has been nominated recently by Gov. Haines for the office of coroner.

Dr. C. M. Sleeper of South Berwick is a candidate for member of the Governor's Council from the district comprising the counties of York and Oxford.

Dr. P. S. Sullivan of Biddeford, a graduate of the Bowdoin Medical School of 1913, has located in Sanford.

Dr. L. L. Powell of Saco underwent an operation for appendicitis at the Webber Hospital, Biddeford, Wednesday, September 16.

The Fifth Annual Meeting of the American Association for Study and Prevention of Infant Mortality will be held in Boston, Nov. 12-14, 1914.

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(ESTABLISHED 1905)

The location in the wooded highlands of the Rangeley Lake region is especially beneficial to a large number of non-surgical conditions.

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OF THE

Maine Medical Association.

Published under direction of the Council of the Maine Medical Association

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The Journal assumes no responsibility for opinions expressed by the authors.

VOL. V.

NOV., 1914.

No. 4

*HEART STIMULATION.

By CHARLES H. HUNT, M. D., PORTLAND, ME.

There are two functions upon which man's life depends, minute by minute, throughout his existence. The failure of either for a few seconds terminates it abruptly. They are the respiration and the circulation, the first delivering oxygen to the blood, the second transporting it to the tissues.

Of the two, the circulation is the more important and the subject of more supervision and anxiety. For if a man's breathing fails while his circulation is active, artificial respiration will keep him alive almost indefinitely; but, if his circulation stops, like the famous dog Rover, our unfortunate patient is dead all over. We have no method of artificial circulation.

In most of the crises which confront us in our medical and surgical practice, a failing circulation is the predominating feature. Whether it be the cause or the effect of the situation before us, it is there; it is obvious and objective. The ominously increasing pulse rate and diminishing blood pressure are easily measured, are not matters of judgment or doubt, and are, perhaps, the surest indications that our patient's condition is becoming increasingly dangerous. In the emergencies we are called to treat, our instinctive impulse is to feel the pulse. In the accident case, the man fallen unconscious in the street, or the medical case presenting sudden and alarming symptoms, our first mental question is the same, what is the condition of the circulation? It is inevitable and proper. If the circulation is poor,

*Read before the 62nd session of the Maine Medical Association at Portland, June 11, 1914.

ninety-nine times out of a hundred we try to improve it by the administration of so-called circulatory stimulants. Very few pass through a severe crisis or finally pass out of this world into the next without receiving stimulants. Those few are those dying so suddenly that a doctor cannot be found.

Recognizing then the vital importance of the circulation and the persistence of our efforts to re-establish it or maintain it to the last possible moment, it seems to me that it is worth while to review briefly the whole subject, the general causes of circulatory failure and our methods in combatting these conditions. Now this circulation of the blood depends on three factors. The failure of one causes collapse of the whole process. They are first, an active heart muscle strong enough to keep up a proper movement of blood; second, a sufficient amount of blood to fill the vessels to their normal capacity; and third, the maintenance of vessel tone or blood pressure. The patient dies just as inevitably of vasomotor paralysis in shock, as he does if the fluid is drawn from his vascular system by a fatal hemorrhage, or if his heart muscle fails with dilatation of the heart and diastolic arrest. The result is the same in any case. The circulation ceases. The effect on the pulse is similar in each kind of circulatory failure. With some exceptions, it becomes increasingly rapid and weak until it ceases altogether.

Oftimes two or three causes are present together as in shock complicated by hemorrhage; but in most cases there is one fundamental cause, the relief of which will save our patient's life or at least give him all the chance there is in making his fight.

Now while the final result is the same, and the effect on the pulse is the same, whether we are dealing with a case of hemorrhage, shock, or heart failure, the treatment for these conditions should be different.

Because the pulse is rapid and weak in all of them, the natural tendency is to give heart stimulants in all of them. There are two fallacies in this. In the first place, in two of the conditions, vasomotor failure and hemorrhage, the heart does not need stimulation; in the second, most of the drugs used do not stimulate the heart.

To take each of these causes of circulatory failure in detail, let us consider first, that form due to hemorrhage, a postpartum hemorrhage for instance. In this condition we have the failure of only one of our three essentials of the circulation, caused by the withdrawal of a large amount of blood from the vascular system. While our first efforts are naturally to stop the hemorrhage, after that has been accomplished, our next step is to treat the accompanying collapse. Now, as there is just one cause for the collapse, there is just one thing nec-

essary to relieve it. That is to replace the fluid lost by hemorrhage by an equal amount of fluid from the outside.

The heart needs no attention, the heart muscle is in as good condition as it was fifteen minutes before. The vasomotor system is active. The vessels are squeezed down on the remaining fluid in the attempt to maintain the blood pressure. That they cannot do it simply means that the loss has been too great. The one indication is to fill up the depleted vessels. There is only one liquid we can use, water. Whether we give it to the patient in the form of water to drink or salt solution subcutaneously or intravenously, the same end is in view, to fill up the vascular system.

Salt solution is not a stimulant. It does not stimulate anything, either the heart muscle or the central nervous system. There is nothing mysterious about it. It is simply water and its action is entirely mechanical. The salt is added to it to favor absorption when it is given under the skin or to prevent hemolysis when it is given intravenously and is in itself devoid of action. There has been a good deal of haziness about our ideas in regard to this procedure. If we remember the fact, which is a fact, that a pint of water swallowed and absorbed from the alimentary canal does exactly the same things that a pint of salt solution given in some more dramatic way we can use this useful procedure more rationally and save ourselves the disappointment which comes from expecting to work miracles with water.

Of course the obvious and only advantage of administering water by the venous or subcutaneous route is that it does not demand the consent or co-operation of the patient. It is our only method when the patient is unconscious, or where the retention and absorption of water by the alimentary tract is impossible, or when time is an important consideration. On the other hand, when the patient can and will swallow and absorb water and the short time necessary for its absorption is not a vital consideration, it is foolish and unnecessary to give salt solution by the veins, rectum, or under the skin.

Coming back to our patient with the postpartum hemorrhage, a proper amount of salt solution will restore her to a condition of comparative safety unless the bleeding has been so profuse that the patient dies of oxygen starvation. In that case, nothing short of transfusion will save her life. Certainly heart or vasomotor stimulants are useless.

Of course we apply other methods of treatment, external heat to maintain the body temperature, morphine to quiet the restlessness, and elevation of the foot of the bed to help supply a proper amount of blood to that region which demands it most insistently, the vital

centers in the medulla. But the administration of strychnine for the vasomotor system or digitalis for the heart is illogical and useless.

What has been said of postpartum hemorrhage applies to every case of uncomplicated hemorrhage. Fill up the vessels and let the heart and vasomotor system look out for themselves.

In the next kind of circulatory failure, vasomotor paralysis, the problem is much less simple. For one thing, it is usually complicated by hemorrhage in that form known as surgical shock and by heart muscle failure in the collapse seen in the course of severe infections.

There are two main causes for vasomotor paralysis, first, traumatism; second, toxemia. Shock, the variety due to traumatism, has been and still is the subject of much controversy. Suppose a man is walking along a railroad track and is run over in such a way that both legs are crushed but there is little hemorrhage. One moment he is alive, well, and vigorous. The next he is on the edge of eternity, semi-unconscious, with feeble, shallow breathing, deathly pallor, cold sweat, and an almost imperceptible pulse. What has happened to him? These legs weren't essential to his life, health or happiness. They contain no vital organ. He could get along without them. Yet the crushing injury to them almost or quite destroys his life.

The picture of shock is familiar to all of us. Further, the fact that we are dealing with a vasomotor paralysis with immense dilatation of the abnormal vessels, both arterial and venous, and corresponding ænemia of the vital centers in the brain is generally conceded. It is the process by which these results are produced and the methods of treating the condition about which there is so much difference of opinion.

But out of all the different ideas on the subject, there is one fact that, I think, must be conceded. However the final effect was produced, the starting point of the trouble arose from the tremendous, overpowering, painful, sensory impulses which traveled from those shattered tissues to the brain. It must have been that. There is no other connection between that man's legs and the rest of his body.

Whether we believe that the shock is caused by change in the amount of oxygen and carbon dioxide in the blood, or to exhaustion of the vasomotor center, or to the occurrence of actual demonstrable changes in brain cells, the starting point of the trouble was the same, those painful sensory nerve impulses. Bearing that fact in mind and the further fact that these injurious nerve impulses are continuous until surgery or nature or both have caused them to gradually diminish to the point where they no longer are sufficient to disorganize the man's vital processes, let us consider the usual methods of treating this condition.

Probably the thing most frequently employed is a hypodermic of strychnine. Now pharmacologists do not agree any better than any other class of medical men; but, in this case, there happens to be almost absolute agreement. Strychnine's one great action is to increase reflexes. Every reflex is simply a sensory impulse travelling to a center, being transformed into a motor impulse which proceeds to the organ at the other end of the line. This organ immediately starts into activity whether it is secretory, motor, or what not.

Strychnine increases these reflexes. In toxic cases, it causes convulsions which are merely exaggerated reflexes. Now, it is further agreed that strychnine increases the reflexes in increasing the force of the nerve impulses *before* and not after they reach the center. In other words, it is a reinforcer and intensifier of sensory impulses. If we admit that this is true and if we admit that shock is started by overpowering sensory impulses, it inevitably follows that strychnine is not only useless but positively harmful in shock, and I believe that this is the fact.

It is certainly contraindicated in preparing a patient for injury as previous to operating. It is merely a case of greasing the ways for trouble. The reason more trouble is not produced by this pernicious practice is because the dose is too small to do much of anything one way or another. For the past three years, I have been giving strychnine to medical students for experimental purposes. I have taken students with blood pressure from 110 to 165 and have used from 1/30 to 1/10 of a grain hypodermically. In not one case was there the slightest result either on the heart rate or blood pressure. This may be objected to on the ground that a normal man and a patient in shock are very different. But however enthusiastic you may be over strychnine, it is stretching the imagination to believe that a thirtieth will bring a man back to life who is suffering from a paralyzed vasomotor system when a tenth is inert, in a healthy man with an active one.

Right here, without going into pharmacological details, I should like to say a few things about some of the common drugs used to stimulate the circulation. The one which gives the generic name to all the rest, alcohol, is not a stimulant at all. In small doses it does not affect the heart muscle or blood pressure; in large doses it is a depressant. Its undoubted value in prolonged fevers comes from its food value and not from any circulatory stimulation.

Then there is ammonia, as the aromatic spirits or carbonate, so frequently used in pneumonia and syncope. When given intravenously, ammonia will cause strychnine-like convulsions, but given by mouth it has no action on the circulation. The moment it is absorbed it is changed to urea and as such is inert and is promptly eliminated.

Strychnine, as used clinically, has no effect on the heart or blood pressure. As a respiratory stimulant, it is in a class by itself but its effect on the circulation is nil.

The only way you can get a rise in blood pressure from strychnine is as follows — give an animal curare and paralyze the motor nerve terminals. Then give it a dose of strychnine sufficient to cause convulsions if it had not received the curare. Under these conditions, you can get a rise in pressure. Even here, the effect is of short duration and is quickly followed by a fall to or below the previous level.

The results from camphor and caffeine are uncertain. The way atropine affects the circulation is by paralyzing the vagus terminals in the heart, thus making it beat faster but not harder and having little or no effect on blood pressure.

Salt solution, in the absence of hemorrhage, only stretches still farther the already dilated abdominal vessels with no effect on pressure.

In fact, there is no drug which will regularly, and in doses which are not in themselves dangerous, increase blood pressure by acting on the controlling centers in the central nervous system. If there were, the treatment of shock would be immensely simplified. It would be as easy as recharging a wornout storage battery. Unfortunately, such an agent has yet to be discovered.

There are two drugs which would seem to promise brilliant results, adrenalin and pituitary extract. They both raise blood pressure independently of the vasomotor centers by acting either on the vessel walls or the nerve terminals supplying them.

There are some practical difficulties in their administration, however, which very greatly decrease their usefulness. Adrenalin is almost inert unless it is given intravenously. When given under the skin it is so rapidly destroyed that practically none of it gets into the circulation in active form. When given intravenously it will cause a marked rise in pressure but there is the still further difficulty that it has to be given continuously. The minute you stop its administration the pressure falls back to its former level or below.

Pituitary extract promises somewhat better things. We know that it is absorbed in active form when given intramuscularly and it does raise blood pressure. But even here its effects are very temporary, a few minutes or half an hour at most. A second dose has only a small fraction of the effect of the first and the third probably none at all.

So the outlook for treating well established and severe surgical shock is rather discouraging. You all know that is the fact without being told. You have all seen men badly but not vitally injured stead-

ily growing weaker and dying from this mysterious vascular paralysis.

In the prevention of shock, however, much can be accomplished. Crile's work has demonstrated what can be done by a carefully worked out technic. All his efforts are directed toward protecting the central nervous system from these destructive sensory impulses.

Coming back to the treatment of the man already injured, there is one drug which is, in my opinion, of more value than all the others, morphine. I believe that this should be used in large amounts not only to relieve our patient from pain which is in itself of vital importance, but because it does, to a certain extent, block the passage of these impulses to the brain.

It affords a certain amount of protection to these vital organs. The depression of the respiration need not be feared. No one dies of morphine poisoning who is conscious of pain and our patient will undoubtedly feel some pain from his shattered legs in spite of any dose of morphine we will be likely to give him.

Morphine apparently protects the centers better than anesthesia. The anesthetics, while they destroy consciousness, do not block the sensory paths to the vital centers. The cocaine block of Crile's is not of much value in treating shock already developed but may be of some use in preventing additional injury.

I have not tried to deal with the whole subject of the prevention and treatment of shock but simply to review the action of some of the common drugs employed in its treatment. As far as the drug treatment goes, I believe that morphine is of the most value, most of the others useless and strychnine harmful.

The second variety of vasomotor failure, that due to toxemia, is seen in the course of severe infections. It is partly due to poisoning of the vasomotor centers, and partly to degeneration of the heart muscle. Here again we are dealing with a condition not very amenable to treatment. The logical thing is of course to remove or decrease the toxemia but in a man desperately sick with typhoid fever, it can't be done. However, we are not quite helpless. We can stimulate the heart fibers which have not degenerated by some of the digitalis group. As I have said, we have no reliable vasomotor stimulant. However, in the face of a rapidly failing circulation, I believe in using large doses of strychnine and caffein and digitalis. The latter will make whatever is left of the heart muscle work to the limit of its strength, and the former, while not directly improving the blood pressure, will improve the functional activity of the central nervous system and possibly keep the man's vital functions at work somewhat longer than they otherwise would.

The last form of circulatory failure is that due to actual failure of the heart muscle. I have just spoken of the kind present in infectious diseases, the myocarditis being associated with splanchnic paralysis. The other variety is the one we think of in patients with heart disease. This failure follows one of two conditions, either valvular disease with decomposition or a chronic arterial hypertension.

In both cases the heart muscle has extra work to do. In the former, to overcome the defect in the valves, in the latter, the increased arterial pressure. While the general and heart nutrition is good, the patient gets along fairly well, but, with advancing years and failing nutrition, there inevitably comes a time when the heart is no longer able to maintain the circulation. In the ordinary type of failing compensation in valvular disease, I think it is generally conceded that digitalis stands pre-eminent in restoring the compensation.

In the other type due to chronic hypertension, however, it is not nearly so serviceable. These patients have dyspnoea on slight exertion and frequent attacks of a sense of pain and distress short of real angina. The heart muscle is a little short of the requisite strength. We have two methods of treatment which can be followed. First, to lower the arterial pressure to the point where the heart can maintain the circulation. Second, to leave the blood pressure alone and endeavor to increase the strength of the heart to the point where it can satisfactorily carry the load.

The first method would seem to be the logical thing to do, but there are two objections to it. In the first place, it is practically impossible to decidedly and permanently lower the general average of the blood pressure, and in the second place, it would probably be disastrous if we could. The idea that every high blood pressure must be lowered is fast being discarded and it is more and more being recognized that, in most cases, it is in itself a compensatory process. It is of no advantage to lower a man's pressure and have him die of uremia. It is probable that, due to organic changes in the vessels themselves or the kidneys or some other vital organ, a high arterial pressure is necessary to maintain the circulation through, and the functional activity of, the different organs. The difficulty of permanently lowering blood pressure is obvious when we review the means at our command which will lower the pressure at all.

First, venesection. That will lower the pressure all right but the pint of blood we withdraw is replaced by water from the alimentary canal in a few hours and in a few days at most the pressure is back again.

The nitrites act as quickly but none of them have an effect lasting more than an hour or two and most of them half an hour. In addition, when used continuously, they rapidly lose their effect.

The iodides have very little action. What they have is slow to appear and maintain. Even their most enthusiastic advocates admit that it takes months before much effect can be produced. This is poor encouragement for the patient actually suffering from a gradual failure of his heart muscle to maintain his circulation. Prolonged baths and the high frequency current are useful in some cases but their effect is not marked and is rather uncertain. So again it seems reasonable to say that it is practically impossible to permanently lower the general average of blood pressure and, if we could, our efforts would be likely to do more harm than good.

When we come to the other side of the question, that of increasing the efficiency of the heart muscle, I should like to plead for a more general use of *strophanthus*. In every case where I have used both *digitalis* and *strophanthus* in these cases of hypertension, the effect of the *strophanthus* has been much more marked and satisfactory than that of *digitalis*. Why this is so, I am unable to say. It is not that *strophanthus* has less effect in raising the pressure because neither of them raise a pressure already pathologically high. But it has happened so often that I am convinced it is a fact.

In regard to *strophanthus* there are some interesting facts which, I think, are not generally recognized. It seems to be the rather general belief that *strophanthus* acts like *digitalis* in a milder way. Well, its action is like *digitalis* but is anything but mild. The tincture of *strophanthus* prepared according to the British Pharmacopœia has been determined to be at least eight times as powerful as their tincture of *digitalis*. Dr. Stewart of the Revision Committee of the United States Pharmacopœia states that, in his standardization experiments, the tincture of *strophanthus* was somewhat over four times as powerful as the similar *digitalis* preparation. In standardization work in the medical school, our results have varied from four to eight times, usually the latter. That is, 2m. of tincture of *strophanthus* is as active and produces as much effect on the heart as 15m. of *digitalis*. The advantage of *strophanthus* over *digitalis* is not a matter of dosage however, as reckoning on a basis of eight to one, the effects of the *strophanthus* have been much more satisfactory.

My routine treatment for these cases is to give them 5m. of tincture of *strophanthus* three times a day and have them carry a box of nitroglycerine tablets with them all the time. They are told to take one or more tablets whenever they feel the sense of pain or oppression around the heart. This is not given with the idea of making any change in the average blood pressure but merely to take off the peaks of pressure, as it were. It gives the heart a chance to catch up. I have them continue the *strophanthus* intermittently the rest of their life. Of

course the underlying condition is incapable of cure but with this combination I have felt sure I have prolonged these patients' lives and enabled them to live in much greater comfort.

In winding up this paper, I should like to speak of a real need which exists at the present time. That is for a good, reliable heart stimulant which can be used hypodermically. I mean a drug which will actually make the heart muscle contract more vigorously. Now the digitalis family is the only group which will do this. The tincture can of course be given hypodermically but is very irritating and likely to be followed by sloughing. The digitalins are very uncertain and none of them represent the value of the whole drug. In the medical school, some of the preparations have been absolutely inert. In addition, they are likely to be too irritating to use, and, when experimenting with Merck's digitalin on myself, a twenty-fifth caused so much swelling and pain that my arm was incapacitated for twenty-four hours.

The ampoules of digipuratum are active and suitable for hypodermic use and are probably the best preparation of digitalis to use in this way, but we can't carry a box of ampoules with us all the time. To be of value the drug must be in tablet form so as to be carried in our hypodermic case and be available for instant use at all times. These conditions are best fulfilled by strophanthin. It is the only glucoside that has been isolated from strophanthus and apparently represents the whole activity of the crude drug. While some investigators have claimed that its action was uncertain, that has not been my experience, either in testing the drug on animals or in its chemical use. In the laboratory, we found it uniformly active in increasing the heart beat both on frogs and mammals. The average dose for an adult would be about 1/200 of a grain.

It is somewhat irritating but not to an extent which would cause any hesitation in its use. Usually the patient's arm has a little spot of redness and slight tenderness for a day or two, nothing more. As I have said, it can be always with us, is soluble in water, active, reliable, and only slightly irritating. In at least two emergencies I have been called to treat, I have felt that it saved my patients' lives.

So to go over the drug treatment of these various forms of circulatory failure, it boils down to this. Water for hemorrhage; morphine for shock; digitalis for heart muscle failure in valvular disease; strophanthus for heart failure secondary to hypertension; and strophanthin in our hypodermic cases.

DISCUSSION.

THE PRESIDENT: I will ask Dr. McDonough of Portland to open the discussion of this paper.

DR. McDONOUGH: Mr. President, and Gentlemen—It is like carrying coals to Newcastle to attempt to discuss the therapeutics of this paper: the last word, it seems to me, has been said. But there is something that can be considered, and that is the clean-cut, analytical way in which Dr. Hunt has presented this subject. You hear every day that *materia medica* is slighted in our schools; that therapeutics is a lost art, and you go on in your dreams, never waking up. In our school, the principles are taught; taught as they were in the days gone by, when to your every answer came back the retort, "Why?" The student one month fresh from the Medical School would treat his heart failure with an hypo of *digitalis* or *strophanthus*, and obtain results. But at the end of a year he is worshipping false gods and is hypnotized by a fancy preparation, with a still more fancy label, which is guaranteed to make his patient lift himself by his bootstraps till he shines as a star in some constellation in the heavens. He has forgotten his essentials, and for his heart case, it is strychnine, atropin, caffeine, nitro-glycerine, "one for all, and all for one," without a thought of "why?" If, in a quarry, an unskilled laborer at \$1.50 a day would so mistreat a steam-drill, at the end of ten hours he would be fired. I hope that Dr. Hunt has destroyed that fetish, strychnine, an efficient and much abused drug. A man drops on the street with cerebral hemorrhage, it was strychnine. Again with face purple, gasping for breath, it was strychnine; and when good and dead to accelerate *rigor mortis* more strychnine. The simple way in which the writer has handled this subject makes his argument all the more forceful. As a high class mechanic he discovers the trouble in his machine, and overcomes the difficulty in a scientific manner.

THE PRESIDENT: I declare the paper open for general discussion.

DR. GORDON: Mr. President—I do not often let a paper go without a good discussion. I do not pretend to say that I will give it; but I think this is one of the most valuable papers that I have heard on therapeutics for a long time.

It has been my experience for a great many years that morphine has been the thing for the troubles indicated by this paper. The profession has been so afraid of morphine that it has absolutely let patients die, or at least suffer a long, long time, without giving it. To my mind there is no such regulator of the heart as morphine in cases where it is irregular. It absolutely quiets down the whole nerve centers, and so regulates the action of the heart. In cases of shock, from traumatism especially, to my mind there is nothing like it, and it is the only thing I have used for years and years. Prof. E. R. Peasley, from whom I got more medical knowledge than from anybody else, said to us frequently—he taught surgery, obstetrics, *materia medica* and everything else; he taught every single branch of medicine in the various schools with which he was connected at Dartmouth, Bowdoin, at 13th Street, New York—"Gentlemen, I want to impress upon you one thing; that pain is deadly." It is always deadly. It is always to be remedied, if possible. It is bad for the brain, it is bad for the heart, it is bad for every organ in the body. There is only one thing that relieves pain and that is opium. Do not hesitate at any time, and on all occasions where pain is active at all, where the patient is suffering in any way from shock or pain, to give opium in some form. That is the remedy for pain; and unless you do that, you are giving your patient the worst possible chance.

I agree fully with what the doctor said in regard to the matter of hemorrhage. I have never seen any advantage from strychnia in hemorrhage, in the collapse following (for instance) ruptured tubular pregnancy, and things of that kind. Anywhere where hemorrhage is an element I believe that strychnia has done no good whatever; and I believe the only thing is to fill the vessels full of water for that is all there is to it, whether you give it by the rectum or how else you may give it. The rectum does not absorb nutriment, does not absorb nourishment, but it absorbs water; and the thing to do in all that class of cases is to get it into the system in the quickest possible way.

As I said before, I believe this is one of the most valuable papers we have had in the Maine Medical Association for a long, long time, and it shows the "Hunt" of it. His father was one of those men who dealt in an analytical way with everything; and I am glad to know that his son Charles is following in the footsteps of his illustrious ancestor in that respect. This has certainly been a very close analysis of the matter of shock. I hope that others will have something to say on this topic.

DR. HAYDEN: Mr. President—There is one heart stimulant that has not been mentioned, I believe. The first time I used it I had what appeared to be wonderful success with it, and that was when it first came to my notice. I refer to camphor and oil. I used it on my wife's father, whom I was trying to keep alive until one of his sons arrived from New York. I had used about everything I could think of. He had had a cerebral hemorrhage, and had been suffering from arteriosclerosis and some involvement of the kidneys for some time. Finally, when I thought he was going to die before his son arrived, I used camphor and oil. Whether it was that or not, he improved so much in a few hours that the family thought he was going to get over the attack, and when his son arrived he was a good deal better than he had been for many hours before. I have used it many times since with good results.

DR. MARSHALL: Mr. President—As a representative of the middle class of practitioners, who do not shine very brilliantly before the public in any particular sphere, but who still have a place to fill in, I wish personally to thank Dr. Hunt for his magnificent paper and the manner in which he has presented it. It is really refreshing to hear reference made to some of the old standard remedies used for so many years, and the benefits derived from the use of which I have had emphasized so many times by Dr. Augustus Thayer, one of the representatives of the old style of treating diseases. I think that this paper is a "refresher" to us older men, as well as very instructive to the younger men. I had arrived at the same conclusion regarding strychnia from personal use several years ago. I had paralysis following multiple peripheral neuritis; in fact, at one time I was facing the Dark Stream. I think the condition I was in was the result of my anxiety to get well faster and taking too much strychnia. I do not wish to take up time. I cannot add anything of value; but I do want to thank Dr. Hunt for his paper, and I would like to hear from Dr. Augustus Thayer.

DR. AUGUSTUS THAYER: I can only repeat what has already been said regarding this admirable paper. I was unfortunate in not hearing the first part of it. The last half, I consider very admirable and very instructive. In regard to the different remedies referred to, I have no use for strychnine in cases such as has been spoken of. I do believe, however, in cases of weak hearts, in people well advanced in years and who have need of a continuous stimulating tonic it is of great value. Digitalis, I believe to be very much over used and my experience

tells me, as used, often does much more injury than good. This, however, is an invaluable remedy under certain conditions when properly and judiciously administered. What has been stated in regard to strophanthus I can acquiesce in most thoroughly. I have found it one of the most reliable and useful remedies we have in this class of diseases. The use of nitroglycerine in modifying the action of other powerful heart stimulants is often of great value. I was not expecting to be called on to speak this morning and am not prepared to say more.

DR. STURGIS: Mr. President—In regard to the question of some drug that has an effect on the heart muscle, on the action of the heart, I will relate a little experience. I had hoped to sometime present the case to the Association. It is the case of a doctor who contracted diphtheria in the course of his practice. He was treated with the old fashioned treatment and was laid up for about a year. Twenty years later, he contracted diphtheria again. At that time, fortunately for some of us, he was in a position to be treated by none other than Prof. Hare, and Prof. Hare gave him treatment along the line of the later day diphtheretic antitoxin. He had the usual run, and was discharged from the hospital, as I remember it, in fifteen days. After being out of the hospital between two and three weeks, he felt peculiarly, and went to see Dr. Hare. Dr. Hare was surprised and put him to bed. A few months later he drifted back to Lewiston, and through the kindness of Dr. Philoon, I saw him. The first day I saw him his pulse was 28 to the full minute. One day they could not find Dr. Philoon and they called me, and I found his pulse 23 to the full minute. His wife's story was that when she took his pulse it was 22 to the full minute. I did not know anything else to do but to give him some caffein, and I stayed long enough to see that pulse rate increase. He was told by others, and by myself, that we did not think the caffein would do him much good; but gradually that pulse rate has come up. However, it is not back where we wish it was. Walking along side of him on the street and counting his pulse, it will occasionally show 32 beats to the full minute. His name is Dr. Jones, and he is now working for the Noyes Drug Company of New Hampshire, calling on some of us physicians. It was interesting to me to think that the caffein seemed to have an effect—at least the man got it. It was the only time in my life that I have ever counted a man's pulse at 23 to the full minute. His wife said she counted 22, and I believe her. To speak of another drug, I have got apparent results from the use of camphor and oil. I agree with the paper as to the others, for which I thank Dr. Hunt very much.

DR. LONG OF SAN FRANCISCO: Mr. President—I really feel like complimenting Dr. Hunt on his splendid paper. I have nothing especially to add; but I must say that in the manner in which Dr. Hunt has analyzed the question of heart stimulants, he has made the whole thing exceedingly plain. He has simplified the whole question so that it is very easily grasped and understood. Of course the drugs mentioned are familiar to every practitioner. It is only a matter of judgment as to their application; a matter of diagnosis as to the conditions existing at the time the patient is seen. The paper is certainly most excellent, and I hope that it may be published in some of the medical journals, so that the profession may have the advantage of a second reading and a thorough study of it.

THE PRESIDENT: If no one else wishes to make any remarks on this subject, I will ask Dr. Hunt to close the discussion.

DR. HUNT: Mr. President and Gentlemen—I thank you for the bouquets passed in my direction. I had hoped that I would start a little controversy here, but I find I cannot.

In regard to what Dr. Hayden said about camphor: Camphor is really a volatile oil in solid form. It has the gentle action of volatile oils. It is a diffusible brain stimulant, but does not have much action on the circulation; and, as this paper was confined to circulation, I did not go into it.

In regard to Dr. Sturgis' case, which was apparently a case of partial heart block, where the pulse dropped down to below 30, it is claimed that digitalis is of some value where the patient is not getting the proper circulation; but when the pulse is intermittent, digitalis is contra-indicated for the simple reason that it has the tendency to make that partial block complete, and, in making it complete, the patient may die. If he once gets by the period where he has absolutely independent ventricular rhythm, he usually will get on pretty well; but it is the preliminary period which is dangerous, and they have not found any drug which affects the lack of rhythm to any considerable extent, so far as I know.

***THE EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS.**

BY W. EVERETT GRAY, M. D., C. M. (MCGILL), MILLTOWN, N. B.

The early diagnosis of pulmonary tuberculosis is important—(1) to the individual suffering from the disease; for, all other things being equal, the earlier the diagnosis is made, the greater will be the chance of cure; (2) to the community at large, since by its early recognition we may prevent a "closed" lesion becoming an "open" one, and the source from which others may become infected. Unfortunately it is often impossible to do this, for by the time the patient consults his physician, the disease has already advanced beyond the early stage, and the diagnosis and prognosis are then only too clear.

In the beginning, pulmonary tuberculosis is a disease of intermittent course—the beginnings usually overlooked, or passed over as "febricula," "influenza," etc., and the acute symptoms may subside without the nature of the lesion being discovered. Hence it nearly always reaches us at a diagnosable stage.

*Read before the Washington County Medical Society and the Washington County Anti-Tuberculosis Society at Machias, August 13th, 1914.

Now briefly, what are the usual signs which bring a patient to us, and the presence of which should cause us to suspect that tuberculosis might be present? The most important are:—(1) cough; (2) loss of weight and strength; (3) hæmoptysis; (4) hoarseness; (5) dyspeptic symptoms; (6) fever, sweats, or a chilly sensation in the evening, or at night; (7) a family history of the disease, or the history of gross exposure to infection. We will take it for granted that these things have been thoroughly gone into in getting the history of the illness, and will pass on to the consideration of the objective or physical signs as obtained by examination of the patient's chest, and to the various special tests, and the examination of the sputum.

Examination of the Chest. The patient should be stripped to the waist, and should be sitting or standing, comfortably relaxed. A regular system of examination is most helpful, and each side of the chest should be carefully compared with the other.

Inspection and Palpation. In the cases under consideration—the early ones—there will probably be little or no change found. Very little information can therefore be obtained.

Percussion. This to my mind is the most important part of the physical examination, and should give most information. The percussion should be gentle, and this is a most important point. All we can hope to find is a slight difference in the "pitch" of the note produced, and this can only be determined by gentle percussion. We should pay particular attention to the "sites of election" for pulmonary tuberculosis. In front, these are found under the middle third of the clavicle on each side. Behind, they are in the apices of the upper and lower lobes. The upper reaches to the first dorsal vertebra, and near the inner end of the supraspinous region; the lower extends up to the third vertebral spine on the right side, and to the fourth on the left. Impairment, when present, is found about the level of the fifth, between scapula and spine. We should bear in mind that normally, in percussing up the back, the note obtained rises in pitch from the base up, and that in very muscular subjects we find impairment over the rhomboids, where they pass from the vertebræ to the border of the scapula.

We should percuss very softly, and, if impairment be found, increase the force of the percussion to see at what point it disappears. This proceeding gives a measure of the impairment, which, if slight in amount, will only be appreciable to gentle percussion, and will disappear when greater force is applied. If the impairment be not found to gentle percussion, softer and softer percussion must be tried, bringing out any difference between the two sides, and this must be continued

until the note is only just audible. It is at this stage that we have the true "threshold percussion" of Goldscheider.

When in early tuberculosis a slight rise in pitch is found over one apex during quiet breathing, this change may be greatly accentuated by percussion at the end of full expiration. The effect of this manœuvre is to increase the resonance over the healthy side, and to diminish it over the diseased side, so that a difference which was perhaps difficult to appreciate, is reinforced, so as to be easily perceptible.

As a further aid, we should in all cases of doubt, map out the areas of apical resonance, between the supraspinous fossa behind, and the clavicle in front. Several methods have been devised to this end, but I only know one — that of Kronig. The area must be mapped out with very gentle percussion, the edge being marked and very carefully verified after it is marked. The result in a normal case, would be a band of resonance extending from the clavicle in front to the supraspinous fossa behind, with a narrowing or isthmus where it crosses the trapezius. After each side is mapped out, the areas should be measured and compared at the clavicle in front, level of the first dorsal vertebra behind, and at the isthmus. Normally the isthmus should be about 5 cm. in width, and never less than 4 cm. If the resonant areas are equal, and normal in extent, they are evidence of healthy lungs, at least in so far as the apices are concerned.

The earliest changes found in pulmonary tuberculosis consist in a blurring of the outline. This may occur both on the inner, and on the outer side, but affects the inner more commonly at first. A difference in the size of the areas, and especially in the width of the isthmus, may be discovered on two sides. This may be due either to expansion of one side, or to retraction of the other. The former may be due to unilateral emphysema, a condition which generally points to old disease with scarring in the lung beneath. Retraction may be due to tuberculous change, recent or otherwise.

Percussion, therefore, gives us the following information—the presence of impairment at one apex and its amount; whether it is deep or superficial or both: and also tells us whether there is any deformity in size or shape of the lung apex.

Auscultation. Percussion and auscultation cling closely together in the diagnosis of early pulmonary tuberculosis. In fact they are almost inseparable. Here we must investigate three things. In the order of their importance they are — (1) Adventitious sounds; (2) Breath sounds; (3) Voice sounds.

Adventitious Sounds. When present, these may constitute some of the most important signs in early tuberculosis. The two sides should be compared with quiet natural breathing. If any adventitious

sounds be present we should determine whether they accompany both inspiration and expiration. If absent at first, deeper and deeper breathing should be persisted in, and finally the patient instructed to cough at the end of expiration. The succeeding inspiration should be carefully investigated. Especial attention should be paid to the sites of election, as mentioned under percussion.

Râles in Phthisis. Especially characteristic in the early stages, are a few sticky crackles at the end of inspiration. These may be elicited after cough, and with deep breathing. If present during quiet breathing, the case is no longer early. The essential factor is their persistent location at different times. In addition we should look for fine friction sounds over the apices. They are heard best at the end of forced inspiration and expiration.

Breath Sounds. These may be (a) broncho-vesicular; (b) feeble breath sounds; (c) interrupted, wavy or cogwheel inspiration; (d) granular and rough inspiration. None of these sound changes are in themselves indicative of tuberculous change, but are simply corroborative evidence of other findings. In forming any conclusion as to their value, two points are necessary to be established — (1) Are they strictly localized to small areas of lung tissue. (2) Are they present at the same place on more than one examination. If they do not fulfil these requirements they are of no significance.

Voice Sounds. These are seldom changed in early pulmonary tuberculosis.

Temperature. A slight rise of temperature in the evening may be of value in the early diagnosis of tuberculosis, but it should be borne in mind that not all cases have it, and that absence of temperature should not rule out the possibility of tuberculosis being present. Further, before we can rule it out, the temperature should be taken every two hours, instead of twice daily, or at most every four hours.

Special Tests. Under this heading we should consider the X-ray, and tuberculin tests. The former I know nothing about, beyond the fact that a large amount of work has been, and is being done. It would undoubtedly be a help in some cases, but the method needs an expert to apply it, and also to interpret the results.

Tuberculin. There are three tests — the von Pirquet or cutaneous; the subcutaneous; and the conjunctival. The only one I have had any experience with is the von Pirquet, and I think that a negative result with it, is of more value than a positive.

Sputum. In the early diagnosis of pulmonary tuberculosis the examination of the sputum should not be neglected. It should be done indeed, in every case of lung disease where there is any sputum at all.

It is rarely, indeed, that the patient has no cough, for, as a rule, that is one of the earliest things they complain of.

The discovery of the tubercle bacillus is positively diagnostic of the disease. There is no question about it. On the other hand a negative finding signifies nothing. Nor should we be satisfied with one negative report, but in suspicious cases should make many examinations. During late years, much has been done to help in the discovery of the bacillus. Various concentration methods have been devised, the best one of which is that where we use antiformin. This dissolves everything but the tubercle bacillus, and this can be found by examining the sediment. This method is especially good if the bacilli are present in small numbers.

Then there is the discovery of the Much granules, which are supposed to be degeneration forms of the bacillus. The technique for staining them is rather hard, but still, we should look for them, before saying definitely that no tubercle bacilli are present.

To recapitulate — in the examination of sputum for tuberculosis we should first stain by the ordinary Ziehl-Neelsen-Gabbett method; if negative, we should use antiformin or one of the other concentration methods; and, if still negative, should do a Gram-Much staining.

Finally, to make assurance doubly sure, we may inject some of the sputum, or the sediment obtained by the antiformin method into a guinea pig, kill it in three to six weeks, and look for evidence of tuberculous infection.

In closing, I would just like to quote from a paper by Brown of Saranac Lake. He says — “As I look back over them, I see that my errors have been largely of omission. I knew, but I failed to act. I am convinced the greater number of mistakes in diagnosis are due to carelessness. ‘Lack of time,’ ‘a cold room,’ ‘during another visit,’ is how we put it.”

COMMENTS ON HOSPITAL ABUSES.

BY S. F. GREENE, M. D., SOLON, ME.

Owing to personal illness, I was unable to attend the meeting of the Association this year but I read with great pleasure and satisfaction, Pres. Peters' address, and the Journal's comments on it. For ten or fifteen years, I have written and spoken about the hospital outrages in this State, and when I see leading men in the profession taking notice of these evils, very naturally I am gratified.

This is no new subject. The attention of the Maine Medical Association has been called to the hospital evil repeatedly, during the last twenty years, and several committees have been appointed by it to confer with the trustees of these lay corporations, which are called hospitals, to see if they would not have a little consideration for the medical profession which makes their avaricious scheme possible; but the committees' propositions have invariably been "turned down."

When Dr. Williams was president of the Association, he called attention to this same matter. One trouble with a doctor in discussing this question is that he is apt to be so polite his argument has no force. There is no occasion for reading a whole book on etiquette before any one commences to discuss this hospital proposition. If any one does do it, it should be the layman, before he lays his plan to extort a service from the medical profession. Hospitals were not created in the interest of the medical profession, nor are they run in the interest of charity. As run, they are not only degrading to the medical profession but a menace to public safety. Many a young physician has had his hopes and ambitions blasted by the operations of public hospitals. Nearly all young physicians start into their profession with high ambitions (if they didn't, they wouldn't spend the best part of their lives in getting a medical education and paying the debts incident thereto). Many have surgical desires and have given special attention to this branch of their studies, but about the first time a young man mentions an operation to his patient, he is asked, "How much will it cost, doctor?" Then he begins to realize he has got to bid against the hospitals. He will say, "Well, we ought to have a nurse five or six days." "Well, how much will that cost?" The doctor will tell him that a nurse gets three dollars a day and her expenses. Then the patient will say, "They will ask a dollar and a half a day at the hospital and furnish a nurse, do the operation, and furnish board and medicine." And so they will barter and dicker, and the doctor finds they cannot trade, so they finally agree that the doctor shall go to the hospital with the patient and have ten or fifteen dollars for his time and expenses. That is the best trade he can make. The young doctor sees that it does not require a great knowledge of surgery to take a patient to the hospital, so he is inclined to give up his surgical studies, not to provide himself with instruments and dressings, not to familiarize himself with surgical techniques, as things of not much practical benefit to him. After he has gotten rid of every thing that pertains to good surgery, he is called to a case of strangulated hernia or a violent case of appendicitis and all he can do for it is to apply an ice bag until the patient dies. Thus

the avaricious scheme that saved one patient twenty-five dollars, cost another patient his life.

Doctors are inclined to make excuses for wealthy patients who accept free treatment at the hospitals by saying that they do not think that they realize that they are taking a doctor's services for nothing. But do not be deceived any longer, they are not so "green" as they appear to be. The plan of these lay corporations is well understood by the public, and approved and supported by it. All they can see is the dollar-end of it. They see that they can keep the doctors' prices down, make a "cat's paw" out of the medical profession, get the work of young women months and years for nothing, use one doctor to beat another with, and get their work done without paying for it. What can be nicer? And why should they change it? They don't intend to change it, and a simple request on the part of the medical profession for them to have compassion, would be like seeds falling on sterile soil.

They say they do these things in the name of charity. That is wicked. If a doctor had a patient, worth ten thousand dollars, who had appendicitis and an operation was agreed upon, for which the doctor was to receive a hundred dollars, but just as arrangements were being made for the operation, another doctor comes along and says, "I will do your operation and furnish board, medicine, nurse, and attendance until you are well, for a dollar and a half a day," and the patient accepted this offer, and abandoned his regular doctor, would any man with a human heart in him call that charity? It is a sin, and a scheme to outrage the fair name of the queen of the cardinal virtues by calling such an unfair trick as that by the name of charity. Yet, that is what the hospitals do every day.

After all, however, they are not to blame. It is their business to get all they can and to pay as little for it as possible. The medical profession should look after its business. Of course there is no objection to a doctor or anybody doing all for charity that he wants to do. But it is inconceivable that any doctor can think that he is doing anything for charity, when he is operating gratis on another doctor's wealthy patient who goes to him for the sole purpose of getting rid of paying a legitimate fee for a professional service. If charity were anywhere around the place where he was operating, she would forbid his doing it, and would send the patient back to his family physician and tell him to be treated at home and pay for it, for his physician needed the business in his locality to enable him to get a living. The surgeon that does the operation, works cheaply, so cheaply, I am informed, that he doesn't get, even thank you, for a whole year's service. She wouldn't

allow him to work that way, when the main thing that he accomplishes is to prevent a brother practitioner from getting a legitimate fee.

The hospitals as now run, are demoralizing, degrading, and damaging to the medical profession, and causing a widening gap between the faction of the profession that approves their course and the faction that does not, something ought to be done to modify or eliminate them. It is within the power of the profession to do either. But here we are handicapped. One doctor does not have sufficient confidence in another to take a stand. Many an operating surgeon recognizes the wrongs that are being done, and if he were free to do so, would right them. But he knows that some other doctor stands ready to stab him as soon as he is off his guard; so, to hold his position, he has to continue to do what he does not approve of. We never have been and probably never will be, able to get any concessions by conferring with trustees. They have a most perfect and desirable system, viewed from their standpoint. By it they can get their operations and treatment done for nothing and use one doctor to "beat" another. They can use the aspirant for a position, to beat the operating surgeon, and use the operating surgeon to beat all the rest of the profession. This is a hard proposition to handle quickly, because the medical profession is divided on it. But the anti-hospital faction is gaining ground. Twenty years ago, it could hardly get recognition either within the profession or without. Now, even the Presidents of the Association are recognizing these evils and considering means to modify them. In the meantime, every one can work along his own lines to accomplish the desired end. Some do not recommend operations very often, for they do not like to be imposed upon by the first question they know will be asked. Others do not receive patients with much enthusiasm, who go to hospitals for the purpose of beating them out of the operating fee and then return for them to do the convalescent work for little or nothing. Thus we see many hospital cases that are really worse off in the end, than they were before they were operated upon. This doesn't apply to myself, as I generally refuse to treat them at all after they return, unless they are real charity cases or require a second operation for which they have to pay me a full price. I have heard of some adopting other means. Some might not consider such means as just honorable. They do not appeal very strongly to my natural inclinations, but almost any means that will remove an enemy's foot from your neck is honorable, so that this point will have to be left for each one to decide for himself. The fact is, doctors are entitled to a living and protection in their business without organized opposition, the same as other callings. The best means of securing it, is what we should strive for.

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Editorial Comment.

Dry Vegetables in Diabetes.

Eternal vigilance in following the diet and frequent urinalysis are the watchwords in the treatment of diabetes. Sometimes, however, the patient wearies of the sameness of diet, strays aside into the starch-group and has to pay for the vagary by a relapse of symptoms. Labbe in the "Revue De Medicin" for July 19, calls interesting attention to the change of diet produced by utilizing dry vegetables such as peas, beans or lentils, thoroughly cooked of course. Purees may also be used in the same way. Three hundred grams of dry vegetables can thus be utilized for some patients each day with much advantage. Dry vegetables do not constipate, like milk, nor produce diarrhœa as does oatmeal. Digestion is good, absorption is perfect and previous constipation is often relieved. Increased nutrition, reduction of sugar and disappearance of acidosis are the asserted results. With dry vegetables, butter 150 grams, eggs half a dozen, and a few gluten biscuit, may be given for daily diet.

Surgery of the Future.

In a recent address before the British Medical Association, Sir John Sutton goes back to surgery of the past, reviews the advances that have been made in the domain of modern surgery with its bold operations, and comes to the conclusion that the surgeon of the future must be a man who does not limit himself to what mere instruments can do. He must invade what is now considered as the province of the physician himself. The surgeon can no longer remain a mere craftsman but must become a chemical therapist. He must understand deeper and deeper still, the bio-chemistry of disease and of the tumors, benign and malignant, which he now treats simply by extirpation. He will

work more with chemical compounds, of which salvarsan is an example, than with the knife.

To obtain farther advances in modern surgery, we now stand in urgent need of a molecular compound which shall either kill the bacteria and cocci which colonize cancer, or learn how to neutralize their injurious toxines in the same way as salvarsan renders spirochætæ inert, but without destroying the organs or tissues in which they reside.

Vermont State Medical Society.

The one hundred and first annual meeting of the Vermont State Medical Society was held in Rutland on October 8th and 9th. There was a good attendance though not as large as might have been expected, considering the weather which was summertime.

The principal papers read were by Prof. J. G. Adami of Montreal on "The Evolution of Infections;" Dr. E. H. Mullan, Past-assistant Surgeon U. S. Public Health Service on "Some public health aspects of mental deficiency with special reference to diagnosis;" and Dr. Ellis Bonime, Professor Sero-Therapy, N. Y. Polyclinic on "The Specific Treatment of Tuberculosis in General Practice."

The annual dinner on Thursday evening, October 8, was largely attended, the usual number of ladies being present. It was preceded by a public address by Dr. Woods Hutchinson of New York, and the usual after-dinner speeches followed.

Dr. W. W. Townsend of Rutland was elected president and Dr. W. G. Ricker of St. Johnsbury, vice-president for the ensuing year. The next meeting will be held in Burlington, in October, 1915.

Pituitary Disorders.

The eighth Weir Mitchell Lecture before the College of Physicians and Surgeons of Philadelphia was delivered by Harvey Cushing, Boston, Feb. 25, 1914, and appears in The Journal A. M. A., Oct. 31, 1914. After noticing the more recent additions to our knowledge of pituitary disorders and the fact that they are met with in the ordinary walks of life to a recognizable degree, though not causing the patient to seek medical aid, he reviews the disturbing symptoms which they may produce when accompanied with an extreme glandular enlargement or when the secretory activity of the gland is embarrassed. These are essentially of a mechanical nature and the aspects of pituitary diseases dealing with the glandular enlargement or tumor are the chief topics of the lecture. We must not, however, overlook the fact that the constitutional symptoms may not correspond with the size of the growth. The subject is rendered still more complex when we attempt to differentiate between the two lobes of the gland which have quite different functions. Another cause of complexity is the polyglandular nature of every gland disorder which in some cases may cause doubt as to which of the endosecretory organs was first at fault. The now prevalent view is that any derangement of the correlated glands ex-

cites disturbances in the others, but with the qualification that the primary disorder of any individual gland, either of oversecretion or undersecretion, causes its own peculiar group of symptoms. The insufficiencies of adrenal, parathyroid and pineal glands, of the islets of the pancreas and the cells of the sexual organs give rise to their peculiar syndromes, and while we know little of the reverse conditions, except in the thyroid and anterior lobe of the pituitary, the recognition of primary overaction of the other glands will doubtless be forthcoming. It now appears that functional hyperplasia of the anterior lobe stimulates tissue growth, especially of the bones and integument, and at the same time excites the reproductive apparatus as shown by the secondary characters of sex. Little is known, however, of the functional hyperplasia of the posterior lobe which seems to be more concerned with tissue metabolism, for when rendered inactive by disease or compression, metabolic processes are checked and the symptoms produced somewhat suggest the phenomena of hibernation. The tendency toward a relative glandular inactivity seems to occur in most cases of pituitary disease and commonly symptoms of glandular insufficiency come in time to be superimposed on those of outspoken acromegaly. The term dyspituitarism has come to be used to cover all types, though in some cases hypopituitarism appears from the start. Many former obscure symptoms, such as certain forms of obesity and leanness, polyurias, etc., undue drowsiness, delayed or precocious puberty. Promising results have followed glandular therapy and surgical procedures have been indicated in some cases to relieve pressure symptoms, etc. Cushing gives an analysis of 148 cases, 101 of which presented definite tumor symptoms and skeletal changes, and forty-seven lacking these local signs of the disease. The affections of neighboring organisms, such as the optic chiasm, are also treated of and the forms of the sellar enlargement accompanying glandular tumefaction. Cases of abnormal sellas with hypopituitary symptoms need only glandular and not surgical treatment. The operative procedures for suprasellar tumors compressing the chiasm are discussed. Some intracranial procedure is necessary, but Cushing's experience has not been especially happy with the lateral subtemporal route of Horsley or the frontal approach advocated by Hartley, Krause and McArthur, though he has had but few operations as yet in which either was employed in cases in which there was no great deformity of the sella. The operations for tumors distending the sellar fossa have been much more encouraging and the procedure he has come to employ is a modification of the Schloffer operation, suggested by Kauffman, Hirsch and others, and adapted to his own requirements. The operation, Cushing says, combines all the advantages of the endonasal procedure of Hirsch and affords almost double the room that operating through one nostril affords. In many of his cases a simple decompression was employed; in four cases on both sides, and in a number multiple operations were performed, such as transphenoidal operation or sellar or subtemporal decompressions. The details of the paper are instructive, but do not lend themselves to abstracting. In ninety-five patients there were 125 operations with ten fatalities, the results improving in this particular with his greater experience.

Propaganda for Reform.

Digalen Omitted from N. N. R.—In view of increased extravagance regarding the claims made for digalen by the Hoffman-LaRoche Chemical Works the Council on Pharmacy and Chemistry decided to investigate the present eligibility of digalen. Examination demonstrated that the asserted presence in digalen of "amorphous digitoxin" was not substantiated by evidence, that digalen and digalen tablets were not constant in composition and action and that the claim that Digalen causes less gastric disturbances than digitoxin was unfounded. While the manufacturer promised to hold the claim that Digalen contained "amorphous digitoxin" in abeyance, they refused to concede the variable composition of Digalen and reasserted that Digalen was less liable to cause gastric irritation than other digitalis preparations. In view of the overwhelming evidence that Digalen is variable in action and in composition and that it produces the same gastric disturbances as other digitalis preparations, the Council voted that Digalen and Digalen Tablets be omitted from N. N. R. (Jour. A. M. A., Sept. 5, 1914, p. 881.)

Dose of Diphtheria Antitoxin.—While 3,000 units, the dose given in the Pharmacopœia, probably is a sufficient initial dose in many cases, this quantity is not enough to satisfy the factor of safety. There is a growing opinion that no case of diphtheria should receive less than 10,000 units as the initial dose. (Jour. A. M. A., Sept. 5, 1914, p. 873.)

Vaccination against Smallpox and Typhoid.—In view of the war, a general revaccination of the population of Paris has been ordered and huge quantities of anti-typhoid serum have been prepared. (Jour. A. M. A., Sept. 5, 1914, p. 873.)

Angier's Emulsion.—A report of the Council on Pharmacy and Chemistry points out that when Angier's Emulsion, Angier Chemical Co., Boston, Mass., was first put on the market it was advertised as a "food-medicine" and an "Ideal Substitute for Cod Liver Oil." Although the manufacturers now advertise this product as a laxative and state it to be "purely mechanical in its action" they still mingle with the new ones the old claims of "tonic and reconstructive merits" and thus attempt to perpetuate the erroneous belief that the preparation has nutritive value. As to the identity of the petroleum product contained in the preparation, regarding which the advertising circulars make contradictory statements, the A. M. A. Chemical Laboratory reports that this has all the properties of soft yellow petrolatum. (Jour. A. M. A., Sept. 12, 1914, p. 962.)

Angier's Throat Tablets.—These tablets are stated to be composed essentially of elm bark and petroleum and yet are claimed to "promote appetite and aid digestion." The A. M. A. Chemical Laboratory reports the tablets to contain about 12 per cent of soft yellow petrolatum, like that found in Angier's Emulsion. (Jour. A. M. A., Sept. 12, 1914, p. 964.)

Antiseptic Action of Hexamethylenamin.—The former opinion that hexamethylenamin possesses antiseptic action independently of the liberation of formaldehyd, was an assumption not founded on reliable experimental evidence. The recent investigations of Burnam, Hanzlik and others have shown that its action as an antiseptic depends on the decomposition into formaldehyd and am-

monia which occurs only in an acid medium. (Jour. A. M. A., Sept. 12, 1914, p. 962.)

Vaccine Virus not Contaminated.—A study of cases shows that vaccinal tetanus is not due to contaminated vaccine virus. Further, since the law regulating the sale of biologic products in 1902 went into effect, there have been examined in the Hygienic Laboratory of the U. S. Public Health Service over 1,500,000 doses of vaccine virus without a single specimen having been found to contain tetanus spores. Also, experiments indicate that tetanus will not be produced even if the virus used contains tetanus spores. Most cases of vaccinal tetanus are due to infection after vaccination. (Jour. A. M. A., Sept. 19, 1914, p. 1032.)

Sodium versus Potassium Salts.—The probable shortage of potassium salts due to the war suggests that sodium salts may in most cases be substituted without disadvantage. In general, potassium salts have no marked superiority over the corresponding sodium salts. While the potassium compounds are said to be more active and to possess a more diuretic effect, the sodium salts are less depressing to the heart and in some instances less disagreeable to the taste. Sodium iodide, sodium bromide, sodium acetate, sodium citrate, etc., are just as effective as the corresponding potassium salts. (Jour. A. M. A., Sept. 19, 1914, p. 1034.)

Sanatogen.—Testimonials for Sanatogen are published which show good results in cerebral concussion, alcoholic gastritis, anemia, etc. The patient is given a chance to recover by rest, a proper diet and Sanatogen—and the recovery is attributed to Sanatogen. Based on some biologic experiments the exploiters of Santogen assert that "Santogen acts as a strong stimulus as far as the recuperative powers of the blood are concerned." These experiments were repeated by Professor A. J. Carlson of the University of Chicago, using Sanatogen, casein, casein and glycerophosphates, milk and crackers and milk. Prof. Carlson's experiments show that the effects produced by Sanatogen are not different from those obtained when casein, casein and glycerophosphates, milk and crackers and milk are used. (Jour. A. M. A., Sept. 26, 1914, p. 1127.)

Value of Talcum Powders.—The action of talcum powders on the skin depends on their protective and dehydrating properties. On the other hand they tend to form crusts and pastes, due to mixture of the powder with sweat or other secretions. There is doubt if the boric acid in talcum powders can exert any antiseptic action. The action of the salicylated talcum powder of the National Formulary, though containing 10 per cent of boric acid, depends on its salicylic acid. Commercial talcum powders contain small amounts of various antiseptics and perfuming agents and have little value from the therapeutic point of view. (Jour. A. M. A., Sept. 26, 1914, p. 1129.)

Liquid Soap.—The following economical formula has been proposed. It may be flavored and colored to suit: Sodium hydroxid 55 gm., potassium hydroxid 65 gm., cottonseed oil 800 c. c., alcohol 500 c. c. and water to make 5,000 c. c. (Jour. A. M. A., Sept. 26, 1914, p. 1129.)

Significance of the Word "Lutein."—The word "Lutein" has long been applied in physiologic chemistry to designate a group of fat-coloring matters which occur in nature and which have more recently also been given the general designation of lipochromes. As a rule the use of the term has been restricted to the yellow coloring-matter which develops in the ovarian structures. It is unfortunate that lately various preparations of desiccated corpora lutea from animals are being sold as lutein. (Jour. A. M. A., Sept. 29, 1914, p. 1119.)

Book Reviews.

Medical and Surgical Reports of the Hospital of the Protestant Episcopal Church in Philadelphia. Volume II.

Philadelphia, 1914. Press of W. J. Dornan.

For several years we have lamented the absence of any effort in Maine, either on the part of the hospital authorities, or of the physicians of the Maine Medical Association, to utilize for medical instruction the vast amount of medical and surgical material lying fallow for years in the records of these institutions. Already the Maine General Hospital offers more than 35,000 cases, whilst in the other hospitals of the State as many as half again are ready for the student and the investigator. Who will begin the work and make himself historic?

In the meanwhile, the Episcopal Hospital in Philadelphia issued in 1913 a handsome volume dealing with a small part of the material afforded by that institution, and now again we have before us a second volume, easy to handle, and containing in its 425 pages about 45 papers of value to the profession. Amidst so vast a wealth of papers and material, we can merely refer to those papers of chief interest.

The surgical clinique offers a review of 150 consecutive operations, in which we find notes on anæsthesia, carcinoma of the mammary gland in a man, appendicitis, lymphœdema of the leg and lymphosarcoma of the stomach. Amongst the 50 cases admitted to the obstetrical clinique, we observe 6 of ante partum convulsions, with large mortality but no causation suggested. A paper on the treatment of burns, favors the open method, and another suggests the value of bone-conduction in the diagnosis of aneurism of the aorta. A valuable case of acromegaly is described in detail, and particular mention is made of attacks suggesting epilepsy accompanying this bodily affection.

Several papers on fractures are printed in sequence, and go into many details of trochanter fractures, sub-trochantric fractures, and two cases of simultaneous fractures of both patellæ, with copious literature upon this very rare condition.

Much space is given to cases from the orthopædic clinique, including bony cyst of the tibia, torticollis, acute osteomyelitis with death, congenital dislocation of the hip, and the surgical treatment of infantile paralysis. Numerous skiagrams and drawings illustrate this section of the work, effectively indeed.

Amongst the eye and ear papers, mention may be made of one on the diagnosis of ordinary eye diseases, defect of auricle with operation,

remote results of removal of the gasserian ganglion, tobacco optic nerve diseases, and syphilis of the inner ear in a mere boy.

Papers on X-ray diagnosis of abdominal conditions, instances of imperforate rectum, acute hemorrhagic pancreatitis, and modern treatment of chancreoid with excision, cauterization and fulguration, complete this very valuable work. Our sincere congratulations to the men on the Board of Trustees, and to the members of the staff who have made such a book possible and available, both for instruction, and for a lesson to the Trustees and surgeons of all other hospitals. J. A. S.

International Clinics. Vol. II.

24th Series. J. B. Lippincott. Philadelphia and London.

The present volume contains twenty-three papers on Diagnosis, Treatment, Medicine, Surgery, Obstetrics and Child Welfare.

Ballentine's paper discusses "Health before Birth," and goes deeply into the important subject of antenatal hygiene and eugenics. An attempt to attain antenatal health by gestational hygiene and therapeutics can be more quickly put to the test than endeavors to improve the race by selected mating.

Dr. Wade writes effectively on the "Treatment of Prostatism," which includes eleven different methods, some of which have been abandoned, whilst the rest are on trial. Ball writes on the "Treatment of Syphilis of the Nervous System," and believes that something even more efficacious than salvarsan is near discovery.

Under the title of "Physical Treatment of Arthritis," Snow concludes that no field for treatment is so ripe for the cultivation of electro-therapeutics as arthritis, and that no treatment has so far been so seriously neglected. Pfahler expatiates freely on the "Present Status of the X-rays," shows where advances have been made, discusses its burns and dangers, and goes into deep treatment of carcinoma of the breast and sarcoma generally.

In the medical section, Sir Dyce Duckworth discusses "Signs of Senility" and argues for moderation in all things as we grow older, and Dr. Walsh makes suggestions on "Insomnia," continues to "Foot Troubles from too much Elevator, and too little walking," and condemns the red-meat superstition.

The surgical section mentions "Pyloric Stenosis in Infancy," "Short circuiting in perforating ulcers;" "Bismuth paste in tuberculous hip joint affections," and "Gall Stone Surgery."

Dr. Jacobs writes on "Conservative treatment of Tuberculous Hip Joint Diseases," and there are two long papers on "Unusual," and on "Interesting Surgical Cases," titles which no editor should permit

to be printed. For, no case can be interesting, if it is not named, and no case can be called "Unusual" unless it has something attached to define its rarity. How many "Interesting Cases" are thus lost to posterity by lack of a title, and of a note in the index.

Dr. Phillip's able paper on the "Obstetrical Forceps," is valuable and suggestive, whilst about the best paper of all in the long list of valuable articles is one by Dr. Maria Vinton on "Teaching of Sex Hygiene," in which she valorously argues in favor of informing adolescents of both sexes, what sex means; and what it means to every girl, especially.

J. A. S.

Modern Surgery: General and Operative.

By J. Chalmers DaCosta, M. D., Samuel D. Gross Professor of Surgery, Jefferson Medical College, Philadelphia, Pa. Seventh edition, revised, enlarged and reset. Octavo of 1,515 pages, with 1,085 illustrations, some of them in colors. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$6.00 net; half morocco, \$7.50 net.

The seventh edition of Da Costa's "Modern Surgery" presents to the physician and the medical student the best up-to-date single reference book and text-book of American surgery. This edition has been extensively revised and enlarged. While the new book really contains 250 more pages of new material than the previous edition, this is not as evident as might be since each page has been widened and made seven lines longer.

As a reference book, the surgeon will find the descriptions of operative procedure clear, well illustrated and free from the redundant material which clogs the pages of many surgical books. The field of bone, joint and muscle surgery, in which perhaps the greatest advance has been made in the past two years, has been most carefully revised by Dr. Rugh of the Jefferson Medical College, while Dr. Chevalier Jackson, the famous laryngologist, has written the sections on Tracheobronchoscopy and Esophagoscopy.

As a text book, I can well remember that the advent of Da Costa was a godsend in my own student days and the improvement has been great since that time.

P. P. T.

Serology of Nervous and Mental Diseases.

By D. M. Kaplan, M. D., Director of Clinical and Research Laboratories of the Neurological Institute, New York City. Octavo of 346 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$3.50 net.

The importance of serological and cytological examinations as

an aid in the diagnosis of organic diseases of the nervous system and in many cases as a guide to treatment is now generally recognized.

In Kaplan's book are brought together the results of a large number of examinations.

To make a complete review of this excellent work is impossible in a brief report and mention will be made only of the value and significance of the study of the blood and spinal fluid in the diagnosis and treatment of tabes, general paralysis, and cerebro-spinal syphilis.

The author emphasizes the importance of making the four following tests in every case — 1. Wassermann blood. 2. Wassermann spinal fluid. 3. Globulin spinal fluid. 4. Cell count spinal fluid.

Furthermore, no combination of serological findings is constant and in many cases a *correct diagnosis is attained only by a correlation of laboratory with clinical data.*

In *tabes* serological examination is usually unnecessary for diagnosis but may prove most valuable as a guide to treatment.

Cases are divided into several types according to the laboratory findings.

In the most common serological type of tabes the Wassermann is usually positive for the blood and negative for the spinal fluid. The globulin is normal. The number of lymphocytes is increased, varying from 25 to 95 to the cubic millimeter. (The normal cell count is below 8 to the cubic millimeter.)

The hyperlymphatic type differs from the ordinary type in that the cell count is higher, the globulin is often in excess, and the fluid is more likely to show a positive Wassermann. These three abnormalities of the spinal fluid are indicative of an active irritative process with pain as a clinical manifestation. It is this type which is most favorably influenced by salvarsan.

A rarer type is that of cases with absolutely negative findings, both in blood and spinal fluid. A relatively negative type differs from this only in a slightly increased cell count. Negative findings indicate that degenerative lesions are present without active irritative changes. Cases of this type are usually without pain and are not helped by salvarsan.

A fourth type is the so-called Wassermann fast type in which the Wassermann tends to remain positive in spite of all treatment.

In regard to treatment, one should keep in mind what may reasonably be expected and should understand that no chronic degenerative lesion (posterior sclerosis) can be cured. "On the other hand, it has been quite well established that the inflammatory processes, whether they be mild or severe, can be influenced by specific treatment.

and no matter how well chosen the remedy, more than this can not be accomplished by this means." The laboratory examinations used in connection with the clinical data are thus a guide for the selection of patients suitable for treatment.

In the negative type of tabes the author advises against treatment with salvarsan, believing that in some cases it may be actually harmful. On the other hand, in cases in which the cytological examination indicates a meningeal irritation, the results of treatment are usually most gratifying, both in the disappearance of pain and in the improvement of the serological picture.

In *general paralysis*, in a series of 261 cases, the blood serum was positive in 90.5%. The fluid was positive in 75.3%. In 5.3% of cases there was a positive fluid with negative serum, and in 3.8% both serum and fluid were negative. In general paralysis, as in other forms of syphilitic nervous affections, the cell count is almost always increased and would appear to be a more constant finding than a positive Wassermann.

Differentiation between general paralysis and *cerebro-spinal syphilis* would appear in some cases to be hardly possible from serological findings alone. Most cases of cerebro-spinal syphilis may be classed in one of two types—the positive Wassermann fluid type and the negative fluid type first described by Plaut and considered by him at one time to represent the true type of cerebro-spinal syphilis. In both these forms the cell count tends to be higher than in general paralysis and the globulin is found in excess in a larger number of cases. A very high cell count with increase of globulin is generally indicative of severe meningeal involvement. A rare acellulat type is also occasionally seen in the endarteritic form of cerebro-spinal syphilis without meningeal involvement. Here, as in other forms, the diagnosis must be made by combining laboratory and clinical methods.

The various technique are described. Chapters are devoted to the Wassermann reaction and to the therapeutic use of salvarsan.

The book is to be recommended.

H. M. S.

Hill of Ontario holds that the only way to obtain efficiency in public health is universal enlightenment of the individual of each community, and in his papers entitled, "The New Public Health," Press of the Lancet-Journal, Minneapolis, he outlines his views against coercion and in favor of educational means.

Abstracts of Current Literature.

The British Medical Journal for September 19, 1914, is smaller than usual but has interesting papers on war measures. One of them on open air hospitals in war time is of timely interest to all who are following the war news day by day. Much stress is laid on Dr. Billing's ideas of hospital construction, the chief of all being that the object of all army hospitals is to furnish shelter without diminishing the supply of pure air and light which is necessary to health. For absorption of urine saw-dust is most highly praised. But don't you have to change it often? Practically never, for saw-dust absorbs everything, and from a bag filled with it and utilized by a dozen men the odor given off after six months' use is hardly more than that from so much spirits of turpentine. A second paper deals with the rapid sterilization of water supplies for troops on active service, the essence being: that all water except from public water taps is dangerous. The hypochlorite of lime tests is the one highly recommended and simple methods of instructing all soldiers in its use are given in the paper. The third paper deals with examination of recruits for service and mentions the teeth, feet, so-called rheumatism, the condition of the arteries, and the prevention of sore feet: boots must fit well, be properly made and prophylaxis of the feet should be insisted upon. This brings to our mind a remembrance of childhood when on a long tramp our good father used to pour a teaspoonful of whiskey into our stockings. In this way, as mere lads, we used to walk thirty miles a day. The last paper is on lice, with an enlarged sketch of the nasty creature and methods of good riddance described. The chief reliance is on cleansing the clothes, and applying locally gasoline, paraffine, turpentine, and xylol. With any of these remedies and avoidance of scratching, relief can be soon obtained.

J. A. SPALDING.

The operation of curetting the bony end of the eustachian tube for the purpose of cutting off infection from the nasopharynx and thereby curing chronic suppuration of the middle ear has been tested by John L. Lougee, Boston (Journal A. M. A., Oct. 31, 1914), in twenty-five cases in the Massachusetts Eye and Ear Charitable Infirmary. The general results in these cases are reported: in but one has the tube remained permanently closed and the ear dry. He concludes that the operation is of little value and that it is not possible to close the eustachian tube permanently.

County News.

CUMBERLAND.

CUMBERLAND COUNTY MEDICAL SOCIETY.

The thirty-third regular stated meeting of the Cumberland County Medical Society was held Saturday evening, October the tenth, in the Congress Square Hotel, Portland. Over eighty members were in attendance.

Dr. Talcott O. Vanamee of Portland was elected a member through the medium of transfer from the New York Medical Society.

The President appointed Dr. H. F. Twitchell and Dr. Stanley P. Warren, a committee, to prepare resolutions on the death of Dr. Arthur Scott Gilson, which occurred recently.

Following the business meeting, a most interesting and valuable address was given by Dr. Joseph Colt Bloodgood of Baltimore, his subject being "The Problem of Cancer." Stereopticon pictures, descriptive of the pathology of the disease were shown, and others illustrating certain points in operative technique. Following the paper, a lengthy discussion was indulged in by several of the local surgeons.

The usual social session followed the adjournment of the meeting.

A. P. LEIGHTON, Jr., *Secretary.*

PORTLAND MEDICAL CLUB.

The seventh meeting of the year was held at the Columbia Hotel on Thursday evening, October 1st, with twenty-eight members present.

Cases were reported by Drs. Baldwin, Patterson, Fisher and Mitchell, the last-named presenting a vesical calculus weighing 40 oz. which he had removed from a patient six days before.

The paper of the evening, by Dr. C. O. Caswell, was on "Sciatica" and proved to be very interesting, evoking a long and spirited discussion in which most of the members present took part.

ROLAND B. MOORE, *Secretary.*

KNOX.

The regular meeting of the Knox County Medical Society was held in the parlors of the Hotel Thorndike in Rockland on the evening of the 13th.

A special supper was served by the landlord, which was attended by the majority of our members.

After supper, we listened to remarks by Dr. Bartlett, president of the State Society. His suggestions will be very helpful in making the

Knox County Society a more energetic society and a factor with which to be reckoned.

The communications from the state secretary were read and acted upon at once.

It was voted to send the county secretary to the gathering of the county secretaries in December, our society sharing its part of the expense.

The next meeting of the society will be held at the Hotel Thorndike in Rockland on the second Tuesday in December. It is the annual meeting and officers for the year 1915 will be elected.

H. W. FROHOCK, *County Editor*.

YORK.

The 78th quarterly session of the York County Medical Society was held at the Norton Inn, York, Wednesday, Oct. 7th. A business session preceded the dinner, and three applications for membership were presented. Under the suspension of the by-laws, it was voted to have the election without delay, and the following were elected: Drs. Seabury W. Allen of Boston and York, Chas. M. Sleeper of So. Berwick, and Philip S. Sullivan of Sanford.

An excellent dinner was served from 1 to 2 o'clock.

At the afternoon session, Dr. Gustav A. Pudor of Portland gave an address on "Syphilis," and Dr. Eugene D. O'Neill of Biddeford presented a paper entitled, "Intestinal Stasis as Viewed by Sir Arbuthnot Lane of London." The literary program was especially good and profitable. A vote of thanks was extended to the essayists.

Those present were the following: Drs. G. A. Pudor, Portland; J. W. Gordon, W. W. Smith, Ogunquit; E. C. Cook, F. W. Smith, W. W. Varrell, S. W. Allen, York; J. D. Cochrane, Saco; H. I. Durgin, So. Eliot; J. O. McCorrison, L. H. Brown, No. Berwick; S. B. Marshall, Alfred; D. W. Wentworth, Sanford; H. L. Prescott, Kennebunkport; M. H. Ferguson, C. J. Emery, E. D. O'Neill, J. M. O'Connor, F. E. Small, C. F. Kendall, D. E. Doloff, Biddeford; J. A. Randall, A. L. Jones, Old Orchard. Total, 23.

A. L. JONES, *County Editor*.

H. Koplik, New York (Journal A. M. A., Oct. 1, 1914), gives the history of the first milk depot in this country started by him in 1887 and its results. He found from his experience that the milk depot alone, in spite of its great value, needs to be combined with actual medical treatment of the infant. This idea has been generally accepted and will in time attain greater perfection of method. The guidance of the physician must be carried all through and the ultimate results will show a decided reduction of morbidity, if not of mortality.

Personal News and Notes.

Dr. Percy H. Abbott of Goodwin's Mills, has located in So. Waterboro since the death of his uncle, the late Frank H. Hobbs, M. D.

Dr. Lester L. Powell has recovered from his operation for appendicitis.

Among those in attendance at the American Academy of Ophthalmology and Otolaryngology, held in Boston, October 19 - 21, were Drs. J. A. Spalding, E. E. Holt, A. W. Haskell, E. E. Holt, Jr., Frank Y. Gilbert of Portland; S. J. Beach, Augusta; J. F. Hill, Waterville, and F. W. Mitchell of Houlton.

At the Methodist Church, October 21, Miss Huldah Elizabeth Pettengill and Dr. John A. Greene were married by Rev. J. M. Arters, the pastor. Mrs. George Pettengill was bridesmaid and Dr. William W. Bolster of Lewiston best man. The ushers were Oliver and George Pettengill, Henry Briggs, Dr. William Rowe, Spaulding Bisbee and Edward Kennard. The bride was given in marriage by Hon. Waldo Pettengill, her father. She wore white satin with rose point and duchesse lace. She carried bride roses and lilies of the valley. The church was decorated with greenery and cut flowers. Rand Dunham was organist. After a wedding trip, Dr. and Mrs. Greene will live at 13 Rumford avenue. The bride is a Smith graduate. Dr. Greene graduated from Bowdoin, A. B., 1903, and the Maine Medical School, M. D., 1908.

Dr. Wm. Seaman Bainbridge of New York has returned to his active duties, after spending two weeks vacation with friends and relatives in Auburn.

■■■■■

Arthur Scott Gilson, M. D., graduate of the Maine Medical School, 1894. Fellow of the American Medical Association and member of the Maine Medical Association. Died at his home in Portland, Oct. 9, 1914, aged 59 years.

Frederick L. Davis, M. D., graduate of the Maine Medical School, 1888. Member of the Maine Medical Association, died at his home in Biddeford, Oct. 10, 1914, aged 55 years.

Frank H. Hobbs, M. D., graduate of the Maine Medical School, 1900, member of the Maine Medical Association, died at So. Waterboro, October 11, 1914, aged 56 years.

■■■■■

NOTICE.***Army Medical Corps Examinations.***

The Surgeon-General of the army announces that preliminary examinations for appointment for First Lieutenants in the Army Medical Corps will be held on January 11, 1915, at points to be hereafter designated.

Full information concerning these examinations can be procured upon application to the "Surgeon General, U. S. Army, Washington, D. C." The essential requirements to secure an invitation are that the applicant shall be a citizen of the United States, shall be between 22 and 30 years of age, a graduate of a medical school legally authorized to confer the degree of Doctor of Medicine, shall be of good moral character and habits, and shall have had at least one year's hospital training as an interne, after graduation. The examinations will be held simultaneously throughout the country at points where boards can be convened. Due consideration will be given to localities from which applications are received, in order to lessen the traveling expenses of applicants as much as possible.

In order to perfect all necessary arrangements for the examinations, applications must be completed and in possession of the Adjutant General at least three weeks before the date of examination. Early attention is therefore enjoined upon all intending applicants. There are at present twenty vacancies in the Medical Corps of the army.

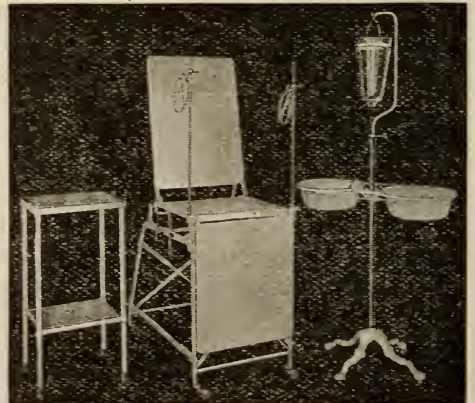
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OF THE

Maine Medical Association.

Published under direction of the Council of the Maine Medical Association

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Communicate with the printer early regarding reprints, as the best rates can be had during time that the paper is on the press for the Journal.

The Journal assumes no responsibility for opinions expressed by the authors.

VOL. V.

DEC., 1914.

No. 5

*STERILIZATION OF THE UNFIT.

BY HENRY M. SWIFT, M. D.

For many people eugenics is not a subject worthy of serious consideration. It has been the source of witticisms for newspapers, comic periodicals, light operas and the vaudeville stage. Even eugenic legislation has had at times a humorous side, for example the difficulties encountered in the execution of a marriage law recently passed in one of the States when the doctors were found unwilling to make a Wassermann reaction and a Gram stain for a fee of three dollars a person as provided.

In this paper I shall try to show that the proposal of any measure tending to lessen the numbers of our dependent classes merits careful attention.

Public expenditure for the care of insane and defectives has been increasing rapidly in all sections of the country. This expense must be borne by the tax payer. The increase of public burden is due in some measure to the fact that people are ever demanding higher standards of treatment for their invalid classes but more especially to the fact that the number of inmates in State hospitals is growing larger year by year.

The accompanying chart shows graphically the increase in the number of insane patients under State care in Maine during the past thirteen years. The lower line indicates the number of admissions to Maine insane hospitals from 1900 to 1913, while the upper line indicates the number of persons under care at the beginning of the different years during the same period. The middle line represents the com-

*Read before the 62nd session of the Maine Medical Association, June 10, 1914.

paratively moderate increase in the total State population. It will be noted that the upper line rises much more rapidly than the lower, the reason being that the yearly number of admissions exceeds the number of discharges and deaths. In other words patients are coming into hospitals faster than they are going out, so that a process of accumulation* is always taking place.

In 1903, there were 880 patients in Maine insane hospitals. Ten years later, in 1913, this number had risen to 1538, an increase of about 75%. These figures do not include the feeble-minded at Pownal who in 1913 numbered 254.

In Massachusetts during the same decade the number of insane and defectives under State care rose from 10,513 to 15,847, an increase of about 50%. In New York State, between 1889 and 1899, the number of insane increased about 51%, and between 1899 and 1909, about 37%.

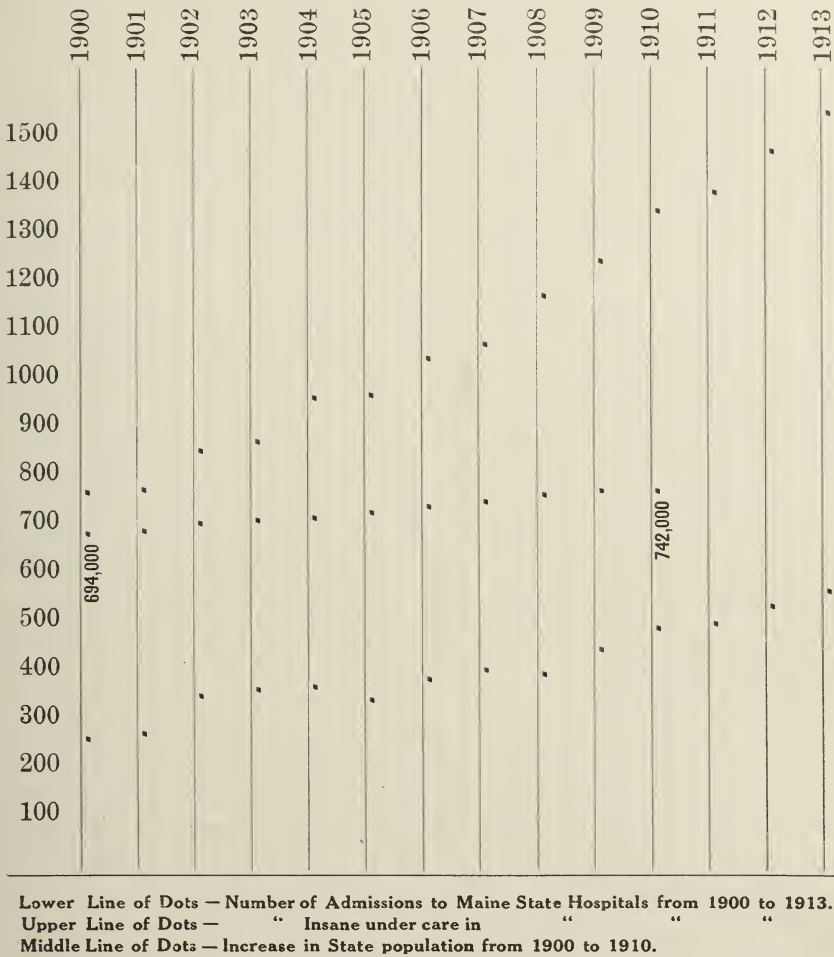
The increase in the number of patients necessitates an ever increasing expenditure for their care. In Maine, during the last decade, the cost to the State has about doubled, the annual appropriation averaging now from \$300,000 to \$400,000. In Massachusetts for the same period the yearly maintenance appropriation rose from \$2,100,000 to about \$3,600,000. New York spends not far from \$8,000,000. In 1904, Dana estimated the amount expended throughout the whole United States at \$60,000,000.

I mention these figures merely to indicate that the subject is one of national importance.

The fact that Maine spends a few hundred thousands every year on its insane and defectives is in itself of small moment. The State can without doubt afford much more than this amount which seems moderate in comparison with expenditures in the more populous States. The significant feature is the rapid rate of increase in the past and the absence of any retarding influence for the future. For this reason it may be felt that sooner or later we may be compelled to adopt measures tending to hold this increasing burden in check and to lessen the prevalence of insanity and mental defect in generations to come.

As in prophylaxis against other diseases so in the case of insanity and mental deficiency, measures of prevention to be effective must be directed to the cause.

*On the other hand the chart does not indicate an increase of insanity in the community relative to the entire population. If that had been the case there would have been a greater rise in the yearly number of admissions. On the contrary it will be seen that the lower line rises very little between 1902 and 1908. The increased admission rate during the last few years is evidently due in some measure to the fact that now many are admitted to insane hospitals who formerly would have been sent to almshouses and so not counted.



Possible causes of mental abnormality are numerous but the majority of these do not particularly concern us here because they are only occasional and so without considerable sociological bearing. An example is trauma which may be a causal factor in a few cases. Other occasional causes suggested are visceroptosis, eye strain and gynecological lesions. Indeed specialists in almost all lines report cases of insanity which have been cured by the correction of various physical defects.

Such cases are probably uncommon in proportion to the number of insane as a whole and represent, I presume, some of the milder types of mental disturbance which may be often treated at home and are thus of minor importance in respect to the problem of reducing the public burden.

Of more general importance is arterio-sclerosis which is a frequent causal factor in psychoses beginning after middle life.

But if we hope that any considerable diminution in the frequency of mental abnormalities is to be brought about, our attack must be directed against causes which are wide-spread and are present in a large number of cases. Of such causal factors may be named three, alcohol, syphilis, and heredity, and I have little hesitation in saying that if an attempt at reduction is seriously contemplated the indications lie in these directions.

In regard to alcohol, as everybody knows, there has been anti-liquor agitation for many years with a probable result that there are today more total abstainers than formerly, all of which is good in that the general human effectiveness will have been increased. On the other hand there is little evidence that the amount of insanity due to alcohol has greatly declined under the influence of this movement.

Toward the diminution of insanities caused by syphilis, as general paralysis, it is possible that something may be accomplished through the education of the young in regard to the dangers of venereal disease. It has also been suggested that with the general use of salvarsan more thorough cures of syphilis will be effected and that the later syphilitic manifestations, general paralysis and tabes, will be less common in the future.

It is probable that the most wide-spread factor in the causation of insanity and mental defect is heredity although its frequency has been variously estimated. To quote a passage from Kræpelin:—"If we take into consideration that not only mental disorders, as the term is generally understood, but also a series of allied conditions as alcoholism, neuroses, peculiar personalities, criminality, etc., are to be regarded as manifestations of the psychopathic constitution and must be considered in the determination of questions of heredity, then in at least 60 or 70% of all psychopathic patients do we find evidence of such abnormalities among the nearest of kin."

Again in cases in which alcohol or syphilis appear to be the principal cause there is often suggested an hereditary causal factor as well. For example, of 62 cases of general paralysis admitted to the Danvers State Hospital† for the year ending November 30th, 1913, there was obtained a family history of mental abnormality in 33%. Of 65 cases of alcoholic insanity was obtained a family history of insanity or its equivalent in 64%.

I mention these figures in order to emphasize the importance of the heredity factor even in those conditions ascribed chiefly to other causes.

†Danvers State Hospital Report, 1913.

If everybody who carried an hereditary taint should have no more children there is little doubt that the frequency of insanity would be much diminished in the future. This has been recognized by many. Hence eugenic teachings, suggestions for regulating marriage, sterilization and other measures of this kind.

It would appear that herein ways are clearly indicated for checking the propagation of the dependent classes and so lessening for posterity the public burden. The question then arises as to why appropriate measures have not been adopted. In my opinion the most correct answer to this is that public sentiment would not be favorable, for although many would admit on general principles the wisdom of marriage laws and other eugenic measures they might offer a rather strenuous objection when such restrictions were applied too near home, and while the average person may be perfectly willing that the marriages of other people should be subjected to supervision he would wish at the same time to be left free to choose for himself and is unlikely to worry seriously about the plight of the tax payer fifty or a hundred years hence.

A valid objection against a general application of measures for the prevention of propagation among the insane is that often in families with bad heredity some of the children are perfectly normal. A further argument of the anti-eugenist is that individuals of exceptional mental endowment, sometimes even of genius, may arise in families carrying the psychopathic taint. Indeed in the present state of our knowledge in regard to the principles of heredity it would seem hardly possible to devise wise marriage legislation applicable to the community as a whole.

Leaving the insane we turn to another class of dependents, namely the feeble-minded, and among these it would appear that something to prevent propagation might be done. In this class should be included not only idiots and imbeciles but also probably many drunkards and petty criminals. The insane also are recruited to some extent from among the offspring of the mentally defective.

The objections advanced against sterilization of the insane as a whole do not apply to persons belonging to the defective classes because it has been reasonably well established that they are unlikely to beget children of even average mental capacity. In this connection it may be well to mention the work of the Eugenics Bureau at Cold Spring Harbor under the direction of Dr. Charles B. Davenport by which many complete pedigree charts have been compiled, showing some of the principles of human heredity and perhaps those of most practical value are the charts dealing with feeble-mindedness. By data of this kind it is indicated that the offspring of two feeble-minded

parents will all be defective. So inasmuch as it is unusual that a feeble minded person mate with another of greatly superior intellect, it might seem only justifiable that in some way he or she should be prevented from having children.

I shall now call attention to two charts illustrating heredity in feeble-mindedness which I have copied from some obtained under the direction of the Eugenics office.

In these charts the squares represent males and the circles females. Black squares and circles represent defectives, N., normal; A., alcoholic; C., criminal; and Sx., sexual offender. In the first chart* a feeble-minded woman marries a normal man. Of the descendants some are feeble-minded and some normal, but by a second marriage with an alcoholic all the children without exception are feeble-minded. The central figure of the other chart† is a feeble-minded woman who has children by six different men. Of these children, two died in infancy, two are feeble-minded, one is an epileptic imbecile, and concerning one no information could be obtained.

The menace of the descendants of the feeble-minded is, I think, appreciated by everybody who has studied the question but it has been suggested that the danger might be averted if all the defectives of a community were to be segregated in colonies for life. Such a life sentence is impracticable for various reasons among which is the enormous expense which would be entailed in providing institutions sufficient for their accommodation as it has been estimated that the total number of defectives in the community is at least six times the number in confinement.

It has also been said that if left alone the imbecile stock will die out of itself. While this applies to the lowest grades quite the reverse is true in respect to the higher grade imbecile or moron; in fact it is estimated that women of this latter type are about twice as fruitful as normal women.

Passages from the Report of the Committee on Applied Eugenics presented to the American Medico-Psychological Association in 1913 well express some of these ideas.

"The consensus of scientific thinkers on eugenics teaches that the feeble-minded are the result of inherited defect."

"That the rate of increase by propagation is more rapid than in normal people, and that the defective class is a self-perpetuating body."

"That the short life of the fatuous need not be expected to stay increase of defectives because morons and not they are the propagators of the type."

*From *Heredity of Feeble-mindedness*. Henry H. Goddard. (See p.170)

†From *a First Study of Inheritance in Epilepsy*. Davenport and Weeks.
(Chart not here reproduced)

As suggested by this same committee, the most feasible measure for the prevention of propagation among defectives would probably be a combination of segregation and sterilization, the plan being to bring a certain number of persons of this class into institutions and to make sterilization the condition of release. In this way place would be continually made for new admissions without the necessity of enlarging hospitals already existing. Jails and houses of correction would also furnish candidates for sterilization.

It may be instructive to refer to legislation in regard to sterilization already attempted in various States and its results. The situation is briefly as follows:* "Laws permitting sterilization have been passed in twelve States but in only three have operations actually been performed. In five States bills have failed to pass the legislature. In four States bills which had passed were vetoed by the governor, and in one State the statute was revoked by referendum.

The reasons given by the governors for their vetoes were various. In some instances it was thought that the bills were too loosely constructed while in other instances there appears to have been disapproval on general principles. Perhaps the basic reason for failure of legislation of this kind is sometimes merely absence of demand on the part of the public.

In three States, a few sterilizations have been done. In Indiana, between 1899 and 1907, 176 men were vasectomized in the Jeffersonville reformatory and during the next year 125 more. In California, from 1910 to 1912, 268 operations had been done and in Connecticut, previous to October, 1913, seven.

The failure in other States to execute laws successfully passed was apparently due in part to the fact that the details by which operations could be ordered were not adequately prescribed.

It is indeed improbable that much in the way of sterilization can ever be accomplished in any State unless by a process of education public sentiment is made to feel its desirability. Again a law which fails to provide means for its execution is useless and were better not passed.

A model law† has been suggested by the eugenics bureau in conformity with legal advice to guard against unconstitutionality. In this it is proposed that in the different States, commissions be appointed whose sole duty it shall be to investigate the family and personal histories of all persons about to be discharged from insane and penal in-

*My information in regard to legislation was obtained from the Eugenics Record Office Bulletin No. 10B. The Legal, Legislative and Administrative Aspects of Sterilization. Harry H. Laughlin.

†Same pp. 115 - 132.

stitutions with a view of determining whether an individual is liable to beget offspring with anti-social traits. If the decision is in the affirmative sterilization shall be recommended by the commission. Next a hearing is held and if the court is satisfied that sterilization is indicated the operation must be performed.

In regard to the choice of operation vasectomy in males and section of tubes in females are probably preferable and are humane. Vasectomy does not cause impotency.

When sterilization laws are seriously contemplated it would appear that the first step ought to be toward the education of intelligent public sentiment so that voters and tax payers would at least have an opportunity to inform themselves as to the merits of the question and to decide whether or not such legislation is desirable.

To recapitulate:

The care of the insane and defectives constitutes a rapidly increasing public burden.

This burden would be incalculably diminished for future generations if measures could be adopted to prevent propagation among these classes.

Such measures are far more applicable to the feeble-minded and allied conditions than to the insane as a whole.

The principal obstacle in the way of the practice of sterilization is the opposition or perhaps, more exactly, the indifference of public sentiment.

DISCUSSION.

THE PRESIDENT: I will ask Dr. Gordon if he will kindly open the discussion upon this subject.

DR. GORDON: Mr. President, and Members of the Association—I think all of us will agree that, theoretically, all that is claimed by this paper and by those who advocate the matter is correct. If we could absolutely stop the propagation of the defectives especially, it would be a great thing done for the State. There is no question about that. As the doctor has said, it is simply a matter of education of public sentiment. Anyone who has seen, as I have seen for the last three years, the defectives at West Pownal, would realize fully that there could be no harm done. It would be no disservice to man or sin against God to sterilize everyone of those men and women who are of child-bearing age. I am sure of that, and I am sure that every member of this Association would agree with me if they could see the actual condition of those people. Now there are some of those people, both men and women, who could absolutely be sent out into the world and earn their own living, and, instead of being a burden to the community, could take care of themselves, were it not for this matter of propagation. We discharged one boy the latter part of last year who was absolutely able to take care of himself. He had run

away twice, and had taken care of himself for several months without any question whatever; and the trustees, at the last meeting of the old Board, were obliged absolutely to say to this young man: "You can go." He said: "If I am not set free, I will run away, and I will go so far that you cannot possibly get me." He was a bright, intelligent man in many ways, and yet there was a defect about him; and, if that man could have been sterilized, there is no question but that he ought to have been let loose. There are quite a number of cases, among the women at the institution where the same thing should be done. Several of them are working as maids, doing good, intelligent work, and they could be sent out into the country, and into the world, to take care of themselves, earn their own living, and be a benefit to the community, if they could be sterilized.

As to insanity, I think that it is a mere theory. I believe no sentiment can be educated to the point where anyone would be willing to have their friends in the insane asylum sterilized; although perhaps now and then there might be a case. Of course, a large percentage of the insane are beyond the child-bearing age, and that matter does not come up; but public sentiment could hardly be evoked in favor of sterilization of the insane or sterilization of criminals. There are a great many people in our prisons as criminals who, perhaps, are there wrongly; so that, if any general sterilization were demanded at all, it would be at once frowned upon, and no public sentiment could come to that point of education. But I do believe that the theory of the thing is entirely right, and I believe that the time will come when public sentiment will endorse a law which will at least provide for the sterilization of the defectives.

THE PRESIDENT: As Dr. Tyson is not present, I will call on Dr. Hedin of West Pownal.

DR. HEDIN: Mr. President, and Members of the Maine Medical Association—I thoroughly agree with what Dr. Swift and Dr. Gordon have said and I believe that sterilization of certain classes of the feeble-minded is a scientific step in the right direction; but whether we are ready at the present time for such a law or not, I am not so sure. You noticed Dr. Swift said that such a law had been passed in twelve States, and only practiced in three, which would indicate that public sentiment is against it, or it is very difficult to execute the law properly; or it may not be practicable to do so. In one State at least where I know such a law was passed, the law defeated itself. The people ceased to send their feeble-minded to the institution where the officials had authority to do this operation and not only did the people cease to send them there, but demanded that those who already were committed there should be released; so the officials had to give up carrying out the law—they had to abandon the operation. I still hope and think that the time will come when the public will be educated to such a point that we will have a law to this effect, and be able to practice it in our own institution. Probably twenty-five per cent of our defective inmates could go out today and earn their living under supervision, but for the fact that if we let them go as they are, they will only go out and produce more feeble-minded, and add future extra expense to the State.

THE PRESIDENT: The subject is now open for general discussion.

DR. GORDON: Mr. President—If I may be allowed just one word more. I happened to meet two years ago a distinguished lawyer from Indianapolis at a meeting of the Fraternity Club in Portland, at which time we had a paper on this very subject. The lawyer was asked to say a few words on the matter.

THE MUELLER-WALLE METHOD OF LIP-READING FOR THE ADULT DEAF.

MARGARET JUSTINA WORCESTER, PORTLAND.

The Germans have always taken an interest in the instruction of the deaf and advocated the teaching of Speech-and-Lip-Reading to deaf mutes. Until recent times, however, little has been done for persons who in adult life had lost their hearing, either wholly or in part. Within the past twenty-five years the desirability of teaching lip-reading to those so handicapped has become evident, and various methods have been worked out. The most scientific so far invented is that originated by Julius Mueller-Walle of Berlin.

This instructor was a graduate teacher from the German Normal College for deaf mutes. His brother, when grown to manhood, lost his hearing, and Mueller-Walle set out to teach him how to read the lips. He was at the start convinced that the method by which a deaf child, totally lacking in language and speech, was taught speech-reading was not well or at all suited to the teaching of an adult possessed of both speech, and an extensive vocabulary. So he abandoned his teaching of deaf children and, gathering together a class of deaf adults, proceeded to teach them, working out a proper method of instruction as he went along. He had no established school but went from place to place, having what one might call a circuit of instruction. The course lasted about six weeks in one city, when he would then move to the next suitable opening. In this way, in the course of years, he taught in several of the largest cities in Germany.

His endeavors at first met with great opposition, both from aurists and teachers in the schools for the deaf, but the results soon spoke for themselves that, as far back as 1892, physicians and specialists for the ear began to recognize the high value of the new method.

Realizing that speech is not a series of isolated sounds, but the overlapping of one sound upon the next; that, speech-reading is simply the reading of the positions which the organs of speech assume for those sounds, Mueller came to the conclusion that instead of teaching the reading of isolated sounds, or the positions of the speaking organs for these sounds as heretofore, the pupil should be taught to read the MOVEMENTS of speech, the PASSING from one position to another. For, speech is movement, not a static position of the organs used in speech. Of these there are four principal movements; the lips move forward and backward, and the lower jaw moves upward and downward. This passing from one of these positions to the next, Mueller-Walle termed an intermovement, and the study and recognition of these intermovements is the basis of his system.

The position of a single sound, as "O," (OH), "E," (EE), "A" (Ah) may be clear and sharply defined out, combined with other sounds into words, phrases or sentences, it may lose its distinctness of appearance and look a very different thing, because of the intermovement and the different rhythm and emphasis of the utterances.

Ah Me, is a very different looking thing from Ah———Me . .
Oh May I, from Oh——— May———I . . I Owe, from I —— Owe.

As Mueller taught his constantly changing classes of pupils, he gradually perfected his method, here omitting, there adding, until he obtained a scientific, concise, workable system, capable in the hands of a wise instructor of producing the best results with the least expenditure of time and effort.

In the first lessons the pupil is given five distinctive vowel sounds; Italian A (Ah), long O, OO, long A and long E, and shown the movements made by the organs of speech to produce each one. For the Italian A, there is a downward movement of the lower jaw. For O, there is a forward movement of the lips, while for E the movement of the lips is backward, and so on. These vowels are practiced in constantly changing order until the pupil can read them easily from the lips of the teacher. As for instance; Ah, OO, O; O, OO, Ah; E, OO, Ah and so on. As the syllable is the basis of the drill, no one sound is ever practiced alone, but always in connection with others, for thus the intermovements between the sounds are taught.

After the pupil understands the movement for the previously mentioned vowels, the positions and appearance of six distinctive consonants are explained and illustrated. These are then immediately combined, in practice, with the vowel sounds that have been previously taught; as "FAH, FOH, FOO; MAH, MOH, MOO; SAH, SOH, SOO, etc., and drilled upon in constantly varying order. No thought is given to the sense of the syllables thus read from the lips of the teacher, but they are given with the speed of ordinary speech and the visible picture possesses the rhythm and continuity of conversational speech.

After a drill upon these syllables until a fair degree of accuracy has been obtained, simple sentences are given, using words that may be formed from the syllables of the first lesson, for, to the lip reader, "Sew," for instance, looks the same as "So," "May" and "Pay," the same as "Mae," "Psalm" like "sarm," "Shoe" like "Shoo," and "They," like "Thae."

These syllables can by this time be read with considerable ease, because of the drill that has been given to them.

Thus, in the first lesson, the pupil is encouraged and feels that the instruction is of practical value, when he can see upon the lips

of his instructor, such sentence as 'We may, They may, She may, They may say, We may say, See the shoe, She may see the shoe,' and many similar sentences.

This is the principle, carried throughout the course of thirty lessons. First: the syllable drill which takes the place of scales in the practice of the pianist or vocalist, then sentences, and soon, stories embodying the syllables previously taught. To the beginner, the syllables look so much alike, that it seems impossible to distinguish the one from the other, but there are decided marks of differentiation to the gradually trained seeing eye, and the eye, through farther training by a competent teacher and faithful intelligent work on the part of the pupil, soon becomes a seeing, and as it were, a hearing one.

For, just as the fingers of the surgeon were not originally more skilful than the fingers of his mates, but, by long practice and experience, he has made them so, so the eye of the ordinary person can be trained to become skilful in reading what is visible on the lips of those around him. It requires patience, perseverance, and concentration, but, what art or science can be acquired without these?

A few words concerning the way in which the Mueller-Walle method of speech-reading came to us in America may be interesting. About the year 1900, Miss Martha E. Bruhn, a teacher of French and German in Boston, found herself becoming very deaf. She began to study lip reading in this country but not obtaining success, and hearing through friends in Germany of Mueller's teachings, she went abroad and studied with him. As she both spoke and understood the German language perfectly, the fact that the lessons were not in English was no drawback, and she soon became a proficient lip reader. Mueller was so pleased with her progress that he advised her to let him give her the Normal Training, so that she might teach his new method in America. Therefore, she became his first normal pupil, and finishing her training with him in Berlin, returned to this country, and, after translating and adapting the method to the English language, established in Boston the first Mueller-Walle school for the adult deaf.

The work there accomplished has been very successful, as the steady growth of the school attests. Within a few years, Miss Bruhn has given the normal training to certain experienced teachers of the deaf, so that the method is now competently taught in other cities by duly authorized persons. The method has been highly recommended by leading aurists in various cities, and by the Volta Bureau at Washington under the beneficent interest of Bell, who was inventing an instrument for the deaf when he fell upon the discovery of the telephone. The two leading schools for the instruction of deaf mutes in this country, the Clarke School for the Deaf at Northampton, Massachusetts, and the Mt. Airy School for the deaf in Philadelphia, are using this method in their class rooms.

JOURNAL OF MAINE MEDICAL ASSOCIATION

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Lip Reading for the Adult Deaf.

It gives us pleasure to call attention to an able paper in the current number of the Journal, concerning a method of education of the adult deaf which is much neglected by physicians and others who often come into contact with them. In times past, anybody who became deaf in adult life either heard nothing at all, or pretended to hear what he failed to hear, or bashfully carried about a tin horn with which some conversation with friends near at hand could be readily carried on. Later on, various electrical instruments were invented, but all of them seemed likely to injure the hearing by throwing too much noise upon a very tense and diseased drum head, or upon a labyrinth no longer provided with any apparatus for dampening over-loud sounds. For those reasons, many aurists declined to recommend them to patients, or to utilize them in instructing the deaf in the perception of the human voice.

Various methods of instructing deaf adults in perception of tones by tuning forks and pipes have from time to time been suggested, but they required too much time and patience to be easily and advantageously utilizable for general benefit of the deaf.

In the Mueller-Walle method, to which we call attention in the form of a valuable paper by a capable teacher, who thus speaks ex cathedra, we are pleased to offer an opportunity for the deaf to know something of what is going on, when their ears have been wearied by the use of various apparatus to increase the hearing. In this way, they can also be aroused, by becoming interested in the news and gossip of the world, from that semi-despondency into which the deaf often fall from disuse of one of the most important special senses with which the creator has endowed them. We trust sincerely that this presentation of a method of educating the adult deaf may be followed by praiseworthy employment of one so competent to teach it, as is the author of the paper herewith presented to our readers.

Coming Legislature.

In view of the fact that the next session of legislature convenes early in January, we have gone through the list of legislators for the year 1915 and 1916 and endeavored to find out how many of the medical profession were members and submit the following list, which is open to correction:

Senators:—Lewiston, Alonzo M. Garcelon; Blaine, Aaron J. Fulton; Cumberland, Henry M. Moulton; Old Town, G. Gilmore Weld; Richmond, Wallace N. Price.

Representatives:—Lewiston, Richard T. Leader; Lisbon, Albert W. Plummer; Merrill, Augustus B. Libby; Gorham, Isaac D. Harper; Deer Isle, Cecil E. Wasgatt; Eden, Elmer J. Morrison; Belfast, Adelbert Millett.

Each year finds a number of bills introduced which are of vital interest to the public and in which the medical profession is interested to the extent of preserving equitable laws which would be a credit to our State and its people. We sincerely hope that the medical profession of Maine will not only think and talk but stand ready to act for the best interests of all concerned.

New England Medical Journal.

Owing to many inquiries coming in regarding the proposed alliance of New England Medical Journals, we can only say at this time that there has been a conference with the present owners of the Boston Medical and Surgical Journal and, as yet, no definite plans can be made.

They are very anxious to bring about an amalgamation of the State Journals into a strong New England Journal, which is a very commendable thing, but the great problem which faces them, as well as the other States, is a workable plan which would be equitable to all concerned.

At the present time the proposition put up is, that the various States contribute three dollars per member, which would represent approximately an increase of two dollars in our present dues. On the other hand, this would give to each member a weekly journal, in which the State would be properly represented, both on the managing and editorial boards and there can be no question as to the actual value.

There is now under consideration, however, another plan which will give to those State associations not wishing to undergo extra assessment, an opportunity to receive a monthly journal, containing their transactions, papers and other matters of interest to the profession of that State, which may solve the problem in a different way.

We can only give you the assurance that the owners of the Boston Medical and Surgical Journal are conscientiously endeavoring to bring about this coalition, which will be for the best interests of all concerned and we feel confident that the members of the Maine Medical Association will fully appreciate the end results of this move, providing one or the other or some modification of these two plans are finally worked out. We shall endeavor to keep you posted through the columns of the Journal of various meetings and the results.

Organization of County Secretaries and Officers.

In response to the action of the House of Delegates of the Maine Medical Association, which appropriated the hotel expenses for these members, Dr. J. B. Thompson, secretary, sent out a call for a meeting to be held at the Bangor House. The following were present: Drs. R. C. Hannegan, Sagadahoc; F. H. Webster, Knox; G. A. Neal, Hancock; G. E. Dore, Piscataquis; H. J. Milliken, Penobscot; W. G. Chamberlain, Aroostook; H. W. Smith, Somerset; H. B. Mason, Washington; J. M. O'Connor (substitute), York; D. M. Stewart, Oxford; F. Y. Gilbert (substitute), Cumberland; J. B. Thompson, State Secretary.

Dr. Thompson acted as chairman and outlined the work of the State Secretary, urging closer co-operation with the county secretaries.

Some little time was devoted to the most desirable form of meetings and the general sentiment was in favor of the Washington County plan of written case reports with exhibition of cases, etc.

The sentiment of this meeting is in favor of making the fiscal year begin Jan. 1, and that the secretary and treasurer office should be one to simplify the organization work.

The following subjects were discussed at length: re-instatement of members dropped for non-payment of dues; collecting dues; best method of increasing membership; the needs of our State Journal; the question of medical defense; State program; State officers; and State meeting.

Following a general discussion the Association of Secretaries and Editors became organized, electing Dr. H. B. Mason, chairman, and Dr. R. C. Hannegan, secretary. The meeting adjourned to meet at Poland Springs during the meeting of the Maine Medical Association.

The secretary of any organization is the life of the organization and this meeting and discussing of their troubles will not only be of value to their respective county societies but bring them closer in touch with the State Association work, and we sincerely hope that the life of this new organization will be long and profitable.

English Medical Insurance.

Two years' experience with the famous scheme for national medical insurance has proved that it is a heavy burden to the taxpayers, demoralizing to the medical profession, and unsatisfactory to the beneficiaries, who complain of the perfunctory and inefficient service of the doctors who are willing to serve. Fully one-half of the twenty-four thousand physicians in England have refused to do anything at all with the work. The half still standing out emphasize the haste, indifference and slovenliness of those who try to do the work. For it cannot be done properly. It is become plain, that, whatever tends to break down the independence, dignity and economic position of the physicians as a whole, is necessarily fatal to study, and injurious to the sick. Some method remains yet to be discovered that shall help the sick poor, but shall not at the same time pauperize the medical profession. These opinions resulting from the workings of the National Insurance Law in Great Britain during the two years of its existence will have to be borne in mind and carefully digested by the physicians of our own country, for, sooner or later, we shall be obliged to face conditions such as at present prevail in what we may still call The Mother Country.

The War Temper of German Medical Men.

To us it is incomprehensible, that a war should in so brief a period have produced the enormous change in temper that is now so evident in the German medical magazines as against the English. In these latest German magazines we find an entire page filled with outbursts against "the damnable behavior of England," and the "Accursed behavior of Russia against our Fatherland." "For a superficial reason, that hateful England declared war against us," or "Out of jealousy against our own successful scientific successes and discoveries in the healing art, she allied herself with hated Russia and abominable France to annihilate our world power and our culture;" "England and her scientists have set on fire the popular bon-fire against Germany and its unsurpassed culture."

The writer goes on to talk of "The brutal national egotism of England. Let all of us throw into our fires on our hearth stones the honors once showered upon us by cultivated England." "There comes a time when the softest hearted man smashes his fist on his office table and swears eternal hatred to despicable England."

Doctor and General Hindenberg seems to have had some success in beating "the hated and despicable Russians," and one writer hugs

himself with glee at "This dose of Russian serum administered to the barbarian hordes of Russia by General Hindenberg."

Forgetting the bombs thrown into unprotected cities, these medical men complain of arrows dropped from aeroplanes upon German soldiers and call a fracture of the skull thus produced "the last stroke of inhumanity."

The whole page of this magazine bristles with vulgar expressions of the lowest sort of chosen words of vulgarity and hatred against the "despicable and accursed race of Englishmen." This vilipending of one's opponents is so unusual in medical columns, that we annotate it in brief.

Tinnitus Aurium with Suicidal Tendencies.

At a recent meeting of the British Oto-Laryngological Society, the patients exhibited included a person afflicted with tinnitus and suicidal tendencies. The topic of tinnitus, by itself, was brought forward for general discussion, and many remarks followed to and fro regarding the cause and possible remedies. The peculiar ringing in this case is of value to the general practitioner of medicine, because it followed the administration of an anæsthetic for an operation on an ingrowing toe nail. There had been no previous history of any ear disease, although the patient was slightly hard of hearing in one ear; the one which did not exhibit the tinnitus. Ordinary and careful treatment of the tinnitus with ether inflations, electricity, hypodermic pilocarpine, fibrolysin and counter irritants remained of no avail. Opening of the labyrinth was suggested and then the discussion gradually ran off into the possible benefit from an ordinary exenteration of the mastoid, or the radical operation which includes exenteration and removal of the bones of hearing. Nothing seems to have been mentioned of the mere drilling of a cavity in the eburnated mastoid, which occasionally relieves odd forms of tinnitus.

There is no doubt that a constant roaring, rushing, ringing, tinkling noise in the head or ears is a most distressing thing to endure for years, especially amongst people who have no occupation to drive away a steady perception of the disturbance. Occupation seems to be about as good a relief for ordinary forms of tinnitus, as any operation or remedy so far suggested. One form of tinnitus often met with and due to increased blood pressure is amenable to treatment, and various forms of iodine are indicated. But to the general practitioner, as to the specialist, a symptom that you cannot perceive, or locate, causes a great deal of indifference to the ordinary noises in the ears so often complained of, and patients run from one cure to another and from one physician to another, and now and then suicide ends the case for good.

National Health Guard to Recruit Army of Two Million.

Taft, Gorgas, Fisher, Associated with Institute That Inaugurates Guard.

An army of two million, to be known as The National Health Guard, having for its object the upbuilding of a more efficient nation, physically as well as mentally, is the plan outlined in connection with an appeal "To the American People" now being issued by President E. E. Rittenhouse, of the Life Extension Institute, recently organized by prominent men, including Ex-President William H. Taft, General W. C. Gorgas, Professor Irving Fisher, Robert W. de Forest, Frank A. Vanderlip, Charles H. Sabin and H. A. Ley.

No fees are required to join this new "army of national defense," according to the enlistment cards sent out from the New York headquarters at 25 West 45th Street. It aims to stimulate public interest "in every wisely designed movement to prevent life-waste and upbuild national vitality."

Duties After Enlistment.

To enlist in this newest arm of defense, one merely pledges "That I will, in so far as my circumstances and opportunities will permit, make an earnest effort to do these things:

1. To inform myself upon the subject of personal, community and household hygiene, and to myself obey the laws of health.
2. To encourage the practice of individuals having periodic health examinations to upbuild physical efficiency and to detect disease in time to check or cure it.
3. To give support and encouragement, and to urge my friends to do the same, to the public health service and officials who are laboring to protect the most precious asset of the nation.
4. To encourage schools, churches, social and civic bodies and employers to give as a patriotic duty all consistent help in stimulating public interest in and in spreading knowledge of the rapidly advancing science of health and life conservation.
5. To co-operate with and advise the Life Extension Institute in its purpose to reduce life-waste and to guard and strengthen the vitality and vigor of our race."

United States Chamber of Commerce to Study Food and Drug Questions.

The Chamber of Commerce of the United States of America, a body composed of representatives from about 600 local boards of trade, chambers of commerce, and trade associations, widely distributed

throughout the United States, has taken up the study of the subject of uniform food and drug regulation. For this purpose a special committee was appointed in July, and its first meeting was held at the headquarters of the Chamber in Washington, October 8th. The committee is composed of Willoughby M. McCormick of Baltimore, A. J. Porter of Niagara Falls, John A. Green of Cleveland, B. L. Murray of New York, and Theodore F. Whitmarsh of New York. Mr. McCormick, the chairman, is a member of the Board of Directors of the Chamber of Commerce of the United States and the head of the firm of McCormick & Co., manufacturers of extracts and drugs and importers of spices and teas; Mr. Porter is president of the Shredded Wheat Co.; Mr. Green is secretary of the National Association of Retail Grocers; Mr. Murray is chemist to Merck & Co., and Mr. Whitmarsh is vice-president of Francis H. Leggitt & Co.

The first meeting of the Committee was devoted to organization and the preparation of a program for the committee's future work. The following resolution was adopted:

Resolved, That the Chairman be and he hereby is authorized and empowered to appoint two sub-committees to consider, respectively, the problems relating more particularly to food control and to drug control, and to report their findings to the general committee.

As a result of the above resolution Mr. McCormick appointed Mr. Murray as chairman of the sub-committee on drug control and Mr. Porter as chairman of the sub-committee on food control.

The following resolution commending the efforts of the Department of Agriculture tending towards co-operation and uniformity was also adopted:

Resolved, That this committee hereby earnestly and heartily endorses the establishment of the bureau in the United States Department of Agriculture, particularly concerned with Federal and State co-operation in the enforcement of the Food and Drug Control Laws, thereby promoting an equal and uniform enforcement of such laws, believing that this work is distinctly in the public interest.

The position taken by the committee on the meaning of uniformity is interesting and will repay close examination. Its views are not confined to a limited horizon, but are intended to grasp the broader and wider fields. Its efforts will be confined to no organization or class of people. It hopes to cover in its endeavors the position of the wholesaler, the retailer, the consumer, the manufacturer, the official, and all others concerned in the production, handling and consumption of food and drugs. But only the broad, general questions of national character will be considered. After a lengthy discussion the committee

at its meeting, by unanimous vote of all present, adopted the following regarding uniformity.

Uniformity as the committee would define it involves the highest degree of efficiency in food and drug control which it is possible to have prevail universally and equally in every part of the nation. The Federal, State and Municipal laws and their regulations would, if perfect uniformity were attainable, reach the level of full and complete efficiency — and thereby afford equal protection and a uniform standard of living for all the people. Uniformity accomplished places merit and the general public interest over local political or geographical divisions. This committee will, therefore, direct its efforts and consideration toward the accomplishment of uniformity. The committee cannot but feel impressed with the magnitude, the importance, and the seriousness of its work. It cannot but feel the need for the closest study of the subject. And again the committee cannot but feel the necessity for the fullest and most cordial co-operation between itself and the officials and all others concerned. The committee will, of necessity, act deliberately and slowly, making certain of each step, considering only the important problems of national character.

New and Non-Official Remedies.

Since publication of *New and Non-official Remedies*, 1914, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Non-official Remedies."

Hypodermic Tablets of Emetine Hydrochloride (Jour. A. M. A., Oct. 3, 1914); antidysenteric serum; antipneumococcic serum, polyvalent; antistreptococcic serum, polyvalent; antistreptococcic serum, scarlatinal, polyvalent; typho-serobacterin, immunizing (Jour. A. M. A., Oct. 10, 1914); pyocyano-bacterin (Jour. A. M. A., Oct. 24, 1914). H. K. Mulford Co., Phil., Pa.

Acne vaccine; bacillus coli communis vaccine; bacillus pertussis vaccine; pyocyaneus vaccine; gonococcus vaccine (Jour. A. M. A., Oct. 3, 1914); meningococcus vaccine, curative; meningococcus, immunizing; pneumococcus vaccine; staphylo-acne vaccine; staphylococcus vaccine; streptococcus vaccine; typhoid vaccine, curative; typhoid vaccine, immunizing; small-pox (variola) vaccine (glycerinated); diphtheria antitoxin; E. R. Squibb & Sons, New York.

Cymarin (Jour. A. M. A., Oct. 17, 1914) The Bayer Co., N. Y.

Maltine Malt Soup Extract (Jour. A. M. A., Oct. 24, 1914), Maltine Co., Brooklyn, N. Y.

Acne vaccine; colon vaccine; pocyaneus vaccine; gonococcus vaccine; pneumococcus vaccine; staphylococcus albus vaccine; staphylococcus aureus vaccine; streptococcus vaccine; scarlet fever treatment; typhoid bacillus vaccine (Jour. A. M. A., Oct. 31, 1914) Greeley Laboratories, Inc., Boston, Mass.

Acne vaccine; colon vaccine; antimeningococcus serum (antimenigitis serum); gonococcus vaccine; polyvalent. Schieffelin & Co., New York.

Strepto-Bacterin (human) Polyvalent. The Abbott Alkaloidal Co., Chicago, Ill.

**Propaganda for Reform.*

Action of Sodium Cacodylate.—Containing its arsenic in organic combination and in the pentavalent state, which becomes therapeutically active only as it is reduced to the trivalent inorganic state, sodium cacodylate is so slightly toxic that therapeutic doses do not give rise to toxic symptoms. There is nothing in the literature to show that sodium cacodylate has a special action on the eye and blindness from its administration need not be feared.

Glycothymoline Refused Recognition.—A report of the Council on Pharmacy and Chemistry cites Glycothymoline as a typical illustration of a "patent medicine" advertised to the public through the doctor. Different formulas have been ascribed to glycothymoline by its promoters from time to time—but whatever the exact composition of this secret nostrum may be, it has been definitely shown that it is but a weak antiseptic solution. Nevertheless, the advertising circulars recommend the use of Glycothymoline in such serious conditions as diphtheria and ophthalmia of the newborn. Glycothymoline is in conflict with Rules 1 and 4 of the Council on Pharmacy and Chemistry, because of its indefinite composition and the method of advertising it to the public. It is in conflict with Rules 10, 6 and 8, in that it is an unscientific, shot-gun mixture sold under unwarranted therapeutic claims and under a misleading name.

Glycothymoline not Harmless.—Glycothymoline is a mild antiseptic practically devoid of germicidal power and when used as a simple mouth wash is practically harmless. However, the recommendations to the public for its use in serious diseases make it a menace to the public health—and physicians are responsible for its wide-spread use.

Declared Misbranded.—The Federal authorities have secured convictions under the Food and Drugs Act against the following "patent" medicines: Nurito, West Baden Sprudel Water, Radam's Microbe Killer, Dr. Hilton's Specific No. 3, Dr. Sullivan's Sure Solvent, Russell's White Drops. With the exception of the first two the products were declared misbranded chiefly because false and fraudulent therapeutic claims were made for them. Nurito was declared misbranded because false statements in regard to the ingredients were made

and West Baden Sprudel Water because it was not a natural water as claimed.

Papine (Battle & Co.) — This is a simple aqueous alcoholic solution of morphine, 1 grain to each ounce. It is exploited under the utterly unwarranted claim that it does not nauseate, constipate nor create a habit.

Celerina and Aletris Cordial (Rio Chemical Co.) — Celerina is a shot-gun mixture said to contain, in addition to 42 per cent of alcohol, kola, viburnum, celery, cyripedium, xanthoxylum and aromatics. Aletris Cordial is said to contain 28 per cent alcohol (more than is found in wine) besides three obsolete and valueless drugs, aletris, helonias and scrophularia. Whatever virtue there is in Celerina and Aletris Cordial is derived from the alcohol.

Hemo. — The Thompson Malted Food Company, Waukesha, Wis., which sells Hemo, Malted Milk and Malted Beef Peptone, offers its stock to physicians with promises of large profits. Hemo is advertised as "the food that builds up weak stomachs" and is stated to contain "the iron of spinach, the juices of prime beef, the tonic properties of selected malt in powdered form and the richest sweet milk." Hemo is "promoted" by absurdly extravagant claims and pseudo-scientific nonsense. Disregarding the question whether or not this is a stock jobbing scheme or whether the purchase of the stock is a good investment, physicians who buy the stock and prescribe the firm's output are not giving their patients a square deal.

*Abstracts from the Journal A. M. A.

County News.

ANDROSCOGGIN.

The regular monthly meeting of the Androscoggin County Medical Society was held in the Board Rooms of the Shoe & Leather Bank, Auburn, Tuesday, Nov. 3, 1914, Dr. Donovan in the chair.

Mr. T. J. Stevens read a paper, the subject of which is "Confusing Religion with Medicine." The discussion was opened by Dr. H. L. Williams of Auburn. He was followed by Dr. Wheeler of So. Paris, after which general discussion occurred. A vote of thanks was extended to Mr. Stevens for his paper.

"Cancer Committee" was referred to by Dr. John Sturgis who stated that Dr. Jackson, as chairman of the committee, wished to know what action the society would take. It was moved by Dr. C. E. Williams and motion was carried that, as members of Androscoggin County Association, we think the subject of cancer would be better treated if each county were to consider the subject, then refer it to the State Association and calling on some one who has had much more experience on the subject than any of us.

Application for membership was received from Dr. Annie R. Young.

Moved to adjourn.

S. E. SAWYER, *County Editor.*

CUMBERLAND.

The annual meeting and dinner of the Cumberland County Medical Society was held at the Congress Square Hotel, Portland, Friday evening, Dec. 11th.

The paper of the evening was presented by Dr. Franklin S. Newell, of Boston, Professor of Obstetrics in Harvard University Medical School. Dr. Newell's subject was "The Treatment of Eclampsia."

ADAM P. LEIGHTON, JR., *County Editor*.

PORTLAND MEDICAL CLUB.

The eighth meeting of the year was held at the Columbia Hotel on Thursday evening, November 5th, with twenty-eight members present. Dr. Richard F. Chase was elected to membership in the club.

Interesting case reports were contributed by Drs. Swasey, A. P. Leighton, Jr., M. C. Webber and Twitchell.

The paper of the evening was by Dr. Herbert E. Milliken, his subject being "Mucous Colitis." This topic was handled in a very interesting manner, and called forth an animated discussion by a number of the members present.

Drs. C. M. Robinson and F. E. Carmichael were appointed to serve with the Secretary as a committee on the annual banquet and to arrange the program for the next year.

The annual meeting and banquet was held at the Congress Square Hotel on Thursday evening, December 3rd.

Officers for 1915 were chosen as follows: President, Dr. Alfred Mitchell, Jr.; First Vice President, Dr. Frank Y. Gilbert; Second Vice President, Dr. Philip P. Thompson; Secretary - Treasurer, Dr. Benjamin B. Foster; Board of Censors, Dr. Bertrand F. Dunn, Dr. Ernest W. Files; Dr. Stanwood E. Fisher.

At the conclusion of the banquet, following remarks by the retiring president, Dr. Williamson, an original poem was read by Dr. Gilbert, which afforded much amusement. An account of the work of the club for the past year was then read by the Secretary.

Dr. Henry H. Brock was then introduced as the orator of the evening, and gave an interesting and scholarly address, consisting of a resume of the progress in medicine during the last twenty-five years.

After brief remarks by the President-elect, the meeting adjourned.

ROLAND B. MOORE, *Secretary*.

SAGADAHOC

The Sagadahoc County Society held its second meeting of the year at Bath, Me., on the evening of the 25th of November. Dr.

W. E. Kershner was elected to membership. The paper of the evening was read by Dr. H. E. Milliken of Portland on "Mucus Colitus." I recommend this paper to every society in the State as one that ought not to be missed.

R. C. HANNIGEN, *County Editor.*

WASHINGTON.

The annual meeting of the Washington County Medical Society was held at the City Rooms, Calais, Thursday, Dec. 10th.

The program of the evening was as follows:

DR. BENNETT. — Pathological findings in a case of bilateral cyst of kidneys.

DR. WEBBER. — Case of appendicitis followed by acute pericarditis.

DR. YOUNG. — A case of gallstones.

DR. HOLLAND. — Gastric ulcer complicated by pregnancy. Gastric ulcer treated by Lenhartz' and Von Laube's methods.

DR. BARKER. — A case of Pellegra.

DR. MINER. — Vicious union of ulna and radius treated by plates and wiring. Gunshot fracture of ulna treated by plates.

DR. DUSTON. — Acute perforating duodenal ulcer. Tuberculous peritonitis in same subject.

DR. GRAY. — Case of intussusception. Case of renal calculus.

DR. BUNKER. — Post-operative nephritic abscess following cyst of kidneys. Malignant disease of kidney with total suppression of urine for ten days.

DR. CRANSTON. — A case of adhesions stimulating appendicitis.

H. B. MASON, *County Secretary.*

Personal News and Notes.

A meeting of the County Secretaries and Editors was held at the Bangor House, Bangor, Tuesday evening, Dec. 8th.

A meeting of the Section of Ophthalmology and Oto-Laryngology of the Maine Medical Association was held at Portland, Dec. 8th.

Dr. Harold V. Bickmore announces that he has opened an office at 94 St. Lawrence St., corner of Congress, Portland.

Gouty Superstitions in France.

There is a celebrated natural spring in the south of France where they claim to cure gout of the hands by dipping them into the bubbling water of the spring. Care must, however, be taken; for if you put your hand into the spring with the fingers down, they will drop off, but holding them bent into a sort of scoop with the finger tips upward, the gout instead will drop to the bottom of the water, and you will be freed of your tormenting pains. This is a good deal like telling a child that, after extraction of a tooth, he will have a gold one in the cavity, provided he is careful not to insert into it the point of his tongue.

Abstracts of Current Literature.

(Journal Cutaneous Diseases, Nov., 1914.)

European Clinics. Salvarsan.

A LETTER FROM DR. JOHN A. FORDYCE.

At the Naval Hospital at Kiel, Oberstabsarzt Gennerich, before the advent of salvarsan, observed a relapse of 45% of patients treated. In the past three years, with combined salvarsan and mercury treatment, the relapses have steadily decreased until now they number but 4%. He has observed about twenty cases of reinfection in the past two years in patients subjected to intensive treatment. In primary syphilis with negative Wassermann, he gives six injections of salvarsan; the first four every five days, the fifth after seven days, and the sixth after seven to eight days. Intramuscular injections of calomel, 0.05 to 0.07 are begun at the same time and continued until twelve or fifteen are given. This course usually suffices to sterilize the patient in the primary stage. In older cases of primary syphilis, a second course may be needed.

In secondary syphilis he precedes the salvarsan course by four to six injections of calomel at six day intervals, then a rest of from twenty-eight to thirty-three days and a second course of salvarsan and calomel. In later periods of secondary stage a third course of salvarsan, after a rest of six weeks, is frequently required. He regulates the dose according to the weight and condition of the patient, giving to men from 0.3 to 0.45 gm., and to women 0.15 to 0.3 gm. He never gives 0.6 gm., as he considers it near the toxic limit. He seldom uses neosalvarsan, except at times to women, or where a mild effect is desired. In a large number of examinations of the spinal fluid, Dr. Gennerich finds pathological changes in primary syphilis in 13%, in secondary in 21%, in tertiary with positive Wassermann in 49%, and in latent syphilis with positive serum in 33%. He punctures all latent cases with serum reactions to exclude possible involvement of the nervous system. Because of lacking facilities of carrying out the Swift-Ellis technique, he uses neosalvarsan directly after dissolving it in physiological salt solution. The doses that he now employs are very small, from a quarter to one or two milligrams, at intervals of from two to five weeks, until five or six injections have been made, then a longer rest period because of the possibility of irritative symptoms. He believes firmly in the importance of freshly distilled water, which should contain no organic or inorganic impurities. Such substances lead to chemical decomposition of the drug and to symptoms of arsenic poisoning. Any additional work thrown on the kidneys by any acute intercurrent illness of whatever nature prevents the prompt elimination of salvarsan and adds to the danger of toxic symptoms. The majority of fatalities following the drug, in his opinion, are due to technical errors and overdosage. In syphilis of the nervous system he thinks antibody formation in the spinal fluid, as a result of this or

other infections, may antagonize or prevent the development of spir-orchætae.

Professor Wechselmann at the Rudolph Virchow Hospital, whose experience in the treatment of syphilis by salvarsan is greater than that of any one, emphasizes the great importance of careful examination of patients before treatment, especially as to the functional activity of the kidneys. He believes that the combination of mercury with salvarsan to be dangerous, and says that syphilis can be cured with the latter drug alone. He employs intravenous injections of old-salvarsan, but in children and in women with poor veins he uses epifascial injections of neosalvarsan, dissolved in a small quantity of salt solution. By proper insertion of the needle, and previous use of salt solution to insure its correct position, these epifascial injections cause little pain or infiltration. He has lately been using a preparation of old-salvarsan, in which the alkali is added to the formula in the making. This powder is readily soluble and acts exactly as the old-salvarsan. Wechselmann does not limit himself as strictly as Gen-nerich to moderate-sized doses, but frequently gives the full amount 0.6 gm. Every patient is punctured when the Wassermann reaction begins to change. He prefers to see a gradual change from positive to negative, as quick changes from positive to negative and again to positive, have little therapeutic or prognostic significance. The contraindications to the use of salvarsan are few, if the size of the dose and intervals are carefully regulated.

BENJ. B. FOSTER.

(Jour. A. M. A., Nov. 28, 1914.)

Intraspinal Treatment of Syphilis.

By Hanson S. Ogilvie, M. D., Asst. Physician The Neurological Institute, N. Y.

The necessity for intraspinal treatment of syphilis of the central nervous system is apparent when we consider certain anatomic and physiologic facts. "We are confronted with the task of dislodging the *Treponema pallidum* from the poorly vascularized regions of the brain and spinal cord. Experiments have shown that the perineuronal and perivascular lymph-spaces communicating with the subarachnoid space are not part of the general lymphatic system of the body. Cerebro-spinal fluid passes readily into the blood stream but the reverse is not true," "for substances introduced intravenously or intraarterially do not enter the spinal fluid."

Syphilis of the central nervous system other than gummata and endarteritis demands intensive treatment by the intraspinal method. The comparative inefficiency of other than subarachnoid administration of curative agents in diseases affecting the meninges and adjacent nerve tissue has been proven by Flexnor in cerebro-spinal meningitis, Wallstein in influenzal meningitis and Flexnor and Amoss in poliomyelitis. These men have demonstrated beyond a doubt that diseases of this type cannot be controlled except by subarachnoid therapy.

The Swift-Ellis method of intraspinal injections of salvarsanized serum in the treatment of syphilis of the central nervous system has

given very promising results. One hour after the intravenous injection of salvarsan blood is taken from the patient. At this time the serum possesses the maximum spirochetididal action with minimum irritative qualities. The serum obtained from the blood drawn at this time is injected intraspinally.

The method suggested by Ogilvie, while essentially the same as the Swift-Ellis method, differs in that serum is first obtained from the patient and then a definite amount of salvarsan is added to that portion of serum which is to be given intraspinally. By this procedure we have absolute control of our curative agent and can increase or decrease its concentration or dosage as indicated. This, of course, is absolutely essential for maximum efficiency in subarachnoid therapy.

C. M. ROBINSON.

(Boston Medical and Surgical Journal, Nov. 5, 1914.)

Asthma in Children. Its Relation to Egg Poisoning (Anaphylaxis).

By Fritz Talbot.

The symptoms of poisoning in children after the ingestion of eggs and certain other proteins are various. There may be vomiting, diarrhea, urticaria or even symptoms of anaphylactic shock. "When a foreign protein is introduced into the blood or tissue, it stimulates certain body cells to elaborate that specific ferment which will digest that specific protein. When such a protein first comes in contact with the body cells, the latter are unprepared to digest the former but this function is gradually acquired. The protein contained in the first injection is slowly digested and no ill effects are observable. When subsequent injections of the same protein are made, the cells, prepared by the first injection, pour out the specific ferment more promptly and the effects are determined by the rapidity with which the digestion takes place. The poisonous group in the molecule may be set free so rapidly and in amounts sufficient to kill the animal." A foreign proteid may thus "sensitize" a child unless successive doses are given at short enough intervals and over a long enough period to cause immunity. A subsequent dose of foreign protein given to a sensitized child causes symptoms of anaphylaxis. Sensitization may possibly be inherited in a child or there may be an inherited tendency to anaphylaxis.

The writer has studied eleven cases of egg anaphylaxis, ten of which gave history of eczema, and six cases had severe asthma. For diagnostic purposes a skin test with the suspected foreign protein is useful. The technique is similar to that of the Von Pirquet tubercular test. A positive test shows an urticarial wheal at the site of application, sometimes in sensitive individuals within five minutes. The six cases reported strongly suggest that sensitization to egg albumen may be the etiological factor in the production of certain forms of asthma in children and that immunization to egg albumen by repeated small doses may be the rational method of treatment. Similar treatment with other proteins in some other forms of asthma and in other manifestations of anaphylaxis may produce very gratifying results.

C. M. ROBINSON.

(Jour. A. M. A., Nov. 28, 1914.)

Oil of Chenopodium in the Treatment of Hookworm Infections.

By Robert L. Levy, M. D., Johns Hopkins Hospital, Baltimore, Md.

While many regard thymol as the vermifuge of choice in treating hookworm infections, this drug has certain very definite disadvantages.

"1. It does not succeed in a certain number of individuals in eradicating the infection.

2. Its ingestion is accompanied in about 45% of cases by disagreeable after effects. . . .

3. In a few instances it has produced fatal poisoning.

4. At present, the supply of thymol is limited and its cost high."

Levy reports that oil of chenopodium (wormseed) is often the drug of choice. His reasons are:

1. Treatment is well borne. No ill effects were noted.

2. Treatment successful in both old and new infections. It sometimes had to be repeated but never failed to eliminate some worms.

3. It succeeded in cases in which thymol had been tried, sometimes repeatedly, and had failed.

4. When given in parallel series to unselected cases the chenopodium seemed much more efficient than thymol.

The treatment is as follows:

First day: Liquid diet; 8 p. m., 1 ounce of Epsom salt.

Second day: Omit breakfast and luncheon; 5 a. m., 1 ounce of Epsom salt; 7, 9 and 11, 16 drops of the oil of chenopodium on a teaspoonful of granulated sugar; 1 p. m., 1 ounce of castor oil containing 50 minims of chloroform. Soft supper.

Third day: Resume full diet.

For children, the dosage is — 6 to 8 years, 8 drops; 9 to 10 years 10 drops; 11 to 16 years, 12 drops; over 16 years, 12 to 16 drops.

The drug is not unpleasant to take and in therapeutic doses is non-toxic.

C. M. ROBINSON.

(British Medical Journal, Oct. 17, 1914.)

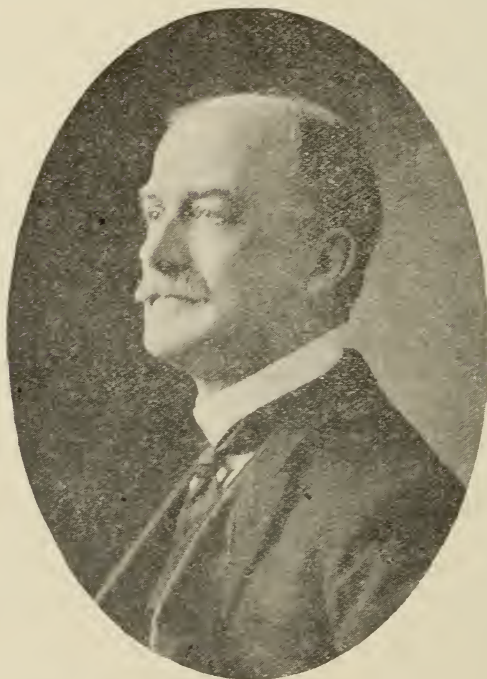
Pinewood Sawdust as a Surgical Dressing.

By C. W. Cathcart.

Pinewood sawdust is very useful as a surgical dressing. The softer varieties are more absorbent while the harder kinds have the advantage of containing more resinous material. The sawdust is sifted to remove the fine dust and also any large particles and is then put in small muslin bags and sterilized. Such bags of sawdust make excellent absorbent dressings.

C. M. ROBINSON.

Necrology.



ARTHUR SCOTT GILSON, M. D.

On the 10th of October last, Dr. Gilson who had long been suffering from the steady advances of tuberculosis passed from our membership, leaving a rare and genial memory as an interesting and promising physician. To those who knew him best, he had never reached the summit of his powers when he was called away.

Arthur Scott Gilson, the son of Charles Augustus and Angie Louise Megquier Gilson, was born in Portland, May 17, 1855, studied in the public schools, and was graduated from the high school at an early age. He then had in mind to continue his education and from that to plunge into medicine, but he met with discouragements of various sorts, and finally went into a banking house, where his pleasant manners and skill

in figures obtained for him much public esteem. In an evil hour for him, as it sometimes afterward seemed, he discovered a defalcation on the part of an official and informed those in charge, but instead of receiving, as everybody felt was proper, a reward in the shape of promotion, he was dismissed. He turned eagerly now, and as we believe most fortunately for the public, to his long cherished ambition to be a surgeon, and in 1894, at the age of forty, he obtained his degree at the Medical School of Maine. His standing in the school obtained for him at once a position as interne at the Maine General Hospital, where he served for a year and laid the foundations for his future surgical attainments. During this time he investigated the uses of anæsthetics to so considerable a degree that he was able, later on, to write a very clever paper entitled, "Practical Anæsthesia."

After leaving the hospital in August, 1895, he married at Winthrop, Maine, Miss Mabel Whittemore Packard of Brooklyn, New York, by whom and by two promising sons he is survived and mourned.

Dr. Gilson settled in Portland in that same year and practiced there the remainder of his life. He obtained his share of public practice and was soon honored with a position on the surgical staff of the Maine General Hospital, in which activity he exhibited abundant skill as a careful, safe and painstaking operator. As a man, he was always neatly dressed, congenial in manner, a fine conversationalist on many topics, interested in all the advances of surgery, whilst for amusements and restful occupations, he studied the preservation of birds and the art of modern photography. A picture which he took of my little mansion is a precious memorial of his talent. He wrote a number of papers, which I style by the one word: "Intelligent." Amongst them were one "On Obstetrics," in which he deprecated the infinitesimal amount of instruction given to students in that very important branch of medical practice; another with original views and suggestions, concerning "Appendicitis," and a deeply interesting research into the subject of "The Masculine Cross," which has attracted students of myth and medicine for ages past, and will continue so to do.

About three years before his death, Dr. Gilson developed symptoms of tuberculosis, but in spite of the best of care and treatment in sanatoria and in the open air at home, he gradually faded away and but lately ceased to be our companion and associate in medicine. I believe that his personality was such that he will long remain a much regretted member of the profession and that our thoughts will long continue to go out to the time when he was one of us.

J. A. S.



GEORGE PERLEY BRADLEY, M. D.

— Medical Director, U. S. Army.

The subject of this sketch was ninth in descent from Daniel Bradley, who landed from the ship "Elizabeth," at Ipswich in 1635, and later lived in Haverhill, Massachusetts, where he died in 1657. His descendants since then, have been distinguished in law, medicine and public affairs, and have fought in the Colonial and Revolutionary wars.

Although Dr. Bradley was not a member of this Association, yet he deserves an appreciation in our Journal. For, he was an able physician, he represented Maine in the navy, he was a typical example of what a high-minded surgeon in the service should be, and he contributed to our transactions in 1883, a remarkable study of the life of the most extraordinary anatomist who ever lived in Maine, Dr. Alexander Ramsay of Fryeburg. His paper gives an extended account of the career of this noted man, originally from Edinburgh, but who crossed the ocean several times, lectured in many American cities, as well as at the Dartmouth and Fairfield Medical Schools, and established at Fryeburg, an anatomical school and museum, to which

many students resorted. If Dr. Bradley had written only this Life of Ramsey, his title to permanent record in our Journal would be established.

Dr. Bradley, the son of Alexander Ramsay Bradley and Mary Osgood Barrows, was born at Fryeburg, January 3, 1849, attended the local schools and academy and began the study of medicine with his uncle, Dr. Thomas Perley of Naples, Maine. He attended two courses of lectures at the Medical School of Maine, and in 1870 obtained his degree at the College of Physicians and Surgeons in New York. He was appointed assistant surgeon in the navy in September of that year, and was promoted from grade to grade to that of medical director, retiring with honor in 1907.

It is not possible in this brief sketch to mention all of the positions which he occupied in his long career, but mention may be made of his cruises in the "Severn," "Hartford," "Mohican," and "Indiana." After every return to port he offered to the bureau of medicine and surgery, excellent papers concerning diseases, epidemics and natural phenomena which he had witnessed and studied whilst abroad.

Dr. Bradley's duties on shore consisted in various commands at hospitals at Chelsea, Norfolk and Mare Island; the museum of Hygiene at Washington and the examining board for retiring of officers.

The latter years of his life were rendered painful by physical ailments, but the climax of trouble was reached, when his sight began to fail from simple glaucoma, the results of high myopia. In spite, however, of loss of sight, he continued in good spirits. "Life to me is still worth living," as he wrote to me in the Autumn of 1913. A few days previous to June, 1914, he failed rapidly from cardio-renal disease, and died on the twelfth of that month.

One of Dr. Bradley's most important papers was a "Report of the Sanitary and Hygienic Condition of the Battleship Indiana," in which he went into the details of the construction of the ship from every point of view, and laid bare its defects, especially in the lack of arrangements for first aid to the wounded in case of battle. This lucid paper has proved of value in the construction of other ships for the navy. In another paper, "On the Sanitary Condition of the Mare Island Navy Yard," he mentioned the sanitary needs of our naval station on the Pacific frontier and prevention of the diseases likely to occur there. During a cruise to Brazil, he met with a valuable Portuguese book "On Remittent Fever," by Dr. Torres Homem, translated it and caused it to be published as of permanent medical value to the crews of ships in South America. During this same cruise, he made a collection of butterflies, which he later presented to Bowdoin College.

When cruising in the Pacific, he visited the leper colony at Molo

Kai and wrote for the department an extended account of the various forms of the disease observed.

Amongst Dr. Bradley's literary essays, mention should be made of one on "The People of the Hawaiian Islands," with accounts of their language, folk lore, riddles and religion. Read before the Folk Lore Society and printed in their magazine, it is of exceptional value as an ethnological survey of a disappearing people.

Perhaps the most lasting monument to Dr. Bradley's fame is his essay on "The Negro Emperors of Haiti." Starting with the foundation of that negro empire during the French Revolution, the reader is carried through the tragic lives of the native negro emperors, and a set of portraits ably illustrates the well written paper.

Dr. Bradley was in advance of his times in medical thought. Suggestions creeping up later on, are known to have been original with him. He was a good diagnostician, proud of his opinions, and sometimes obstinate in defending them. The results, however, generally confirmed the truth of his views.

As this notice shows, Dr. Bradley made the most of his time, was industrious, capable, and active in thought to the end of his days. He read many languages with ease and satisfaction to himself, and loving his Latin, too, he often translated the odes and letters of the classic past. Dr. Bradley married, October 5, 1876, Miss Annie Elizabeth Farmer of Portland and is by her survived.

This genial citizen and surgeon from Maine was brought to Portland at the end of his wanderings, and to his grave if now and then we make a pilgrimage, we may think of the excellent work which he did to make a permanent record of the past of medicine in Maine, and for the advancement of the medical service of the navy of the United States.

J. A. S.

Correspondence.

November 24, 1914.

Hon. William T. Haines,
Augusta, Maine.

My Dear Sir:—From the Secretary of State I received on the twenty-first instant an appointment to membership on the State Board of Health for the unexpired term of its chairman. I thank you for your thought of me in this connection but I respectfully decline to accept the office. Permit me to state my reasons.

First. My presence at one or two board meetings between now and February second next would in no wise prove an inspiration to

the other members in the transaction of business. After that date, the governor-elect would, in all probability, appoint another for the regular term of seven years.

Second. I am not a sanitarian nor a chemist, but a physician engaged in the practice of curative medicine, although I have the degree of Civil Engineer from Cornell University. Boards of Health are concerned solely with the *prevention* of disease, for which men nowadays receive special training.

In recognition of the ever increasing demand in enlightened communities for sanitarians, several of our best medical schools, — Harvard, the University of Pennsylvania, and the University of Michigan, among others, have recently introduced courses of study leading to the degree of Doctor of Public Health. Other things being equal, these graduates together with civil engineers, chemists, bacteriologists, and one skilled in the science of vital statistics, are alone capable of attempting the solution of such momentous problems, affecting the common weal, as confront competent health boards.

Third. If I am correctly informed, our Board of Health's duties are almost wholly advisory, and only during an epidemic of small-pox may it exercise an executive function as well.

In my judgment, to thus strip a health-board of practically all power is to render it comparatively worthless and useless.

Legislation is sadly needed in this State, conferring upon the State Board of Health absolute control of everything, pertaining to the public health. Funds and power should be provided for an active, aggressive, continuous warfare against infections which yearly are responsible for too great an economic loss.

The State, for example, does nothing—save give occasional advice which goes unheeded—to prevent the development of tuberculosis. To partially defray the expenses of a few *early cases* of consumption at Hebron is laudable, but also ineffectual in reducing to a controllable minimum this disease, unless, at the same time, urgent measures are taken against persons with *advanced disease* who are now allowed to roam about undisturbed. Those who are a menace to others because they cannot or will not properly dispose of tuberculous sputum ought to be segregated and isolated. Moreover, a State Board of Health ought to be given power to do this, and then be held responsible for the exercise of it. It is asinine to attempt to plug up the hole in a boat by baling out the water as fast as it enters.

Again. Each year morbidity and mortality from typhoid fever are greater than they ought to be in a State whose sanitary intelligence is high. As soon as this fact becomes more generally known to those who would spend their vacations with us, Maine will suffer an econ-

omic loss, owing to her typhoid reputation, from which she will be slow to recover.

Colon bacilli, an evidence of contamination from intestinal contents, continue to be found in Sebago Lake water year after year. A local board of health is powerless in such a predicament, but a properly organized, full-time, well paid State Board ought to have absolute control of and jurisdiction over the water-shed of all waters used for drinking purposes so as to render colon bacillus findings an extremely rare if not impossible occurrence. *Power to recommend is not sufficient*; ability to seek out the source of such pollution and the authority to prosecute offenders are essential.

What with the supervision of such industries as frequently inflict "industrial disease" upon employees; with the apprehension and prosecution of those engaged in the sale of adulterated or diseased foods; with the regulation of places and hours of labor for men, women, and children; with the dissemination among our citizens of information relating to all occupational diseases, the cause of syphilis and gonorrhea, in addition to enlightenment concerning other infections; with these as some of the duties which ought to devolve upon health boards, we have here a job requiring a high degree of intelligence and learning which must be paid well. Failure to provide ourselves with such skill spells niggardliness.

Fourth. Were I eminently qualified for the position which you offer me under the statute, I could not, situated as I am, at my time of life, afford to give the time which it should require. No one has ever presented one logical reason why men whose duty it is to conserve the health of our citizens should devote their best efforts to that gigantic and most important task without remuneration.

So long as the State is content to fill these vital positions with unpaid men, just so long will these men be obliged to render a service commensurate with what they receive.

It would be equally deplorable, of course, were these offices used for the payment of political debts.

Having thus stated my reasons for declining what ought to be an honor, may I add, in conclusion, that preventive medicine in Maine is a farce by comparison with the work done in such States as Massachusetts and New York. It is a blot on our escutcheon which can only be removed by an awakening on the part of our citizens to the supreme value of health conservation, and to the need of employing trained, well-paid sanitarians to make Maine one of the most healthful, as it is one of the most beautiful, spots on earth.

Respectfully yours,

E. W. GEHRING.

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*PREVENTION OF BLINDNESS FROM THE STANDPOINT OF TRACHOMA, GONORRHOEA AND SYPHILIS.

BY H. T. CLOUGH, M. D., BANGOR, ME.

Mr. President and Members of the Maine Medical Association :

When I was invited by the Committee on Conservation of Vision, of the American Medical Association, to address you on the subject of the prevention of blindness from the standpoint of trachoma, gonorrhoea and syphilis, I hesitated to accept the invitation for I felt my inability to treat the matter in the manner which its importance deserves; but when I considered how urgent was the need for work along this line, I decided to help out what little I could even though my efforts were feeble.

It is not necessary to bore you with statistics regarding these troubles, for statistics are something like animals which can be trained to do things which they would not of themselves do; but I will try to confine my remarks to well-known facts. Nor will I attempt to demonstrate why it is necessary to preserve the sight, from either a sociologic or humanitarian standpoint. Volumes have already been written upon that subject. I think the average intellect needs no explanation of the need for eyesight in the human being.

We are told that there are about a hundred thousand blind people in the United States. These figures do not include the partially blind,

*Read before the 62nd session of the Maine Medical Association, June 10, 1914.

nor those blind only in one eye, but only such as are unable to see to perform even the coarsest kind of manual labor or are unable to read the largest print with any kind of aid we can provide.

The question arises. How many of these people could have been saved their sight?

The causes of blindness are many. Some preventable; some not. Quite a percentage is due to accident which could not possibly have been foreseen and avoided. But, aside from accidents, by far the greater number of blind people in the world are made so from a very few causes. Conspicuous among these are trachoma, gonorrhœa and syphilis.

As to the first-named cause not much need be said here, for, while it is a very grave disease to the eyes, and we have a great deal of literature concerning it, I must frankly admit we know but little, if any, more about it than we did 50 years ago, and besides, too, it is not nearly the menace in our latitude as in milder climates. That it is a contagious disease there is no doubt, but just how the specific organisms are conveyed from one to another, or under what conditions it is or is not contagious, we are as much in the dark as ever. It seems to prevail mostly among the poorly-nourished living in over-crowded quarters and under poor hygienic surroundings in general. The disease is said to be very frequently met with in Ohio and Kentucky. Some authorities of late have even asserted that it is a modified form of gonorrhœa, but this theory of the etiology of the disease is very doubtful, and not deserving of grave consideration. Until we know the exact nature of the transmission of the infecting agent, about all we can do to prevent the disease is to keep up those strict measures of quarantine which most States have in admitting foreigners and to strictly observe those general prophylactic measures which everybody should be taught in caring for his own eyes, viz.:

Don't wash the face and hands in a public washbowl, if it can be avoided. If one must be used, make it as clean as possible, and omit cleansing in the immediate vicinity of the eyes. Don't use upon them cloths or towels which are soiled.

Don't touch the eyes with the hands until the latter have been rendered clean by washing.

Don't apply to the eyes medicines prescribed for others, nor use droppers borrowed from the neighbors.

It would hardly seem necessary to caution the public in this respect, but we physicians know that it is a common practice for one person to borrow another's medicine and use it in his own eyes, evidently believing that what is good for one is good for all, regardless of the conditions present.

I once saw a case where this practice resulted not only in blindness of both eyes, but death to the patient. The dropper and medicine were borrowed from a family where diphtheria prevailed, and were contaminated with the Klebs-Loeffler bacillus. These germs were conveyed to the child's eyes, destroying them, and later caused death from cardiac paralysis.

People already suffering from trachoma should be instructed to avoid public towels, wash-bowls, etc., and should be prohibited from mingling with non-infected people in schools and in crowded workshops. In the light of further knowledge concerning this disease, these admonitions may appear as ridiculous as did those of yellow fever after the real method of transmission was discovered, but they can do no harm, and may, after all, be shown to be all the precautions necessary to control the disease.

It is a common knowledge among physicians that gonorrhoea and syphilis are two great wreckers of the human race, but it is not so generally understood by the profession that the two diseases are also the two great agents in making people blind.

Various estimates place the number of blind people due to direct inoculation of the eyes with gonorrhoeal pus from the vaginal canal during parturition at 10 to 30%. Still further addition to this cause is made by those blinded from this disease later in life. But this number, as large as it is, does not represent the whole toll of the Neisserian germ, for many eyes have transmitted to them, through the blood and lymph channels, from the lesions in the urethra or vagina, the gonococcus or its toxin, and serious diseases of the eyes, such as iritis, iridocyclitis, choroiditis and even panophthalmitis are there established. That the poison of gonorrhoea could thus be carried to the eye has not long been known, but the discovery of this fact has helped us solve the mystery of the origin of many heretofore unaccountable cases of iritis and uveitis in general. To illustrate this point, I wish to cite a case I had a few years ago. A young man contracted gonorrhoea followed by gonorrhoeal rheumatism. Later iridocyclitis developed in one eye. Treatment was without avail, and it went from bad to worse until enucleation was necessary. The enucleated eye, on examination, was found to contain a purulent focus in the vitreous, which under the microscope showed gonococci in abundance. Just how these germs can get through the wall of the urethra or vagina and be transmitted to the joints or to the eyes is a mystery, but that they do there is no doubt, and many a heretofore obscure case of eye disease occurring in young and otherwise healthy subjects, has its origin in gonorrhoea.

We thus see that gonorrhœa in addition to the large percentage of blindness it causes by direct inoculation into the conjunctiva, is still further culpable, and that, too, in no small degree.

By far the greater number of blind people made so from gonorrhœa have had what is known as ophthalmia-neonatorum, or gonorrhœa, affecting the new born. At least, 1/10 of all the blindness in the world can be traced to this one cause.

Most States have on their statute books laws aiming at the prevention of blindness from this disease, and the State of Maine was among the first to recognize the importance of such a law, for nearly a quarter of a century ago, Dr. E. E. Holt of Portland was instrumental in getting such an act through our own Legislature.

However well-meant these laws are they must have, to support them, a certain standard of intelligence on the part of the public, and a certain degree of knowledge on the part of the medical profession, if they are to accomplish the good for which they are intended. In illustration of this point, I would cite the following case:

A woman was confined by a physician who lived fifteen miles away. The labor was an easy one, so the physician made no further visits. In two or three days the mother discovered a slight discharge from the baby's eyes. As the baby did not improve under the simple home measures employed, the mother, after a week's time had elapsed, drove to the doctor's for some medicine, explaining to him that the baby's eyes had been discharging for several days. Now the doctor, instead of giving the mother medicine for the child, should have had in mind that the case was probably one of gonorrhœal ophthalmia, and should have either gone to the baby or had it brought to him and the true condition ascertained. But as it was, the mother took the medicine home, treated the child for three weeks more without its being any better, then, taking alarm, she brought the child to the Eastern Maine General Hospital. It presented a most pitiable picture indeed. Both corneæ were wholly destroyed and the sight forever gone.

Now if the mother had known of the danger to the child's eyes she would not have waited a week before consulting the doctor, and if the doctor had known that discharging eyes in an infant almost always means blindness unless properly treated, he would have acted differently, but a lack of this knowledge on the part of both the parent and doctor led to the deplorable result above described. In this particular case the doctor must be held responsible because in all probability at the time he was notified, the eyes were still in a curable condition.

What the public needs along this line is education. This crusade against the prevention of blindness should be carried out with per-

sistence and energy, until every person, young and old, and especially every father and mother in the land understands the danger to the eyes from gonorrhœa.

The child in its passage through the parturient canal receives the infection either directly into its eyes or becomes infected later on when the eyes are opened and the secretion already adherent to the lids is carried in. While we are not able to prevent the spread of gonorrhœa, we have at hand a method of preventing the development of gonorrhœal ophthalmia in the new-born—and this is its most harmful form to the sight—which is almost absolutely certain. Credé found in the foundling hospital at Leipsic that a 2% solution of nitrate of silver applied to babies' eyes directly after birth, practically annihilated the disease in that institution, and this result has again and again been verified in other institutions.

The danger to the infant's eyes from gonorrhœa is so great that every physician doing confinement work should have this disease in mind at all times, and employ prophylactic measures to prevent the disease in every woman he confines unless prohibited from so doing. To start with, the vagina should be thoroughly irrigated with an antiseptic solution just before labor begins or has advanced far. As soon as the head is born, the lids, while still closed, should be wiped off carefully with a clean piece of cloth or absorbent cotton. While the first bath is being given, the child's eyes should not be wiped off with the same water as the body. As soon as the child has been wrapped up, after the bath, the eyes should again be cleansed with clean water and cloth or cotton, and then a 2% solution of silver nitrate instilled in each eye. By this method, ophthalmia-neonatorum can be avoided almost to a certainty.

It has been shown more recently that if the vaginal canal be cleansed in the manner above described and the eyes are attended to in the same manner, that even if the silver nitrate is omitted, the disease can almost wholly be prevented.

So we see that these simple prophylactic measures would have saved the eyes of nearly ten thousand people in our own country. And yet, physicians, in America at least, have not universally adopted them. Some will argue that they are not wholly certain that the silver nitrate is not without harm. The answer to this is that those physicians who have treated thousands and thousands of cases in this way have never seen a harmful result. Others argue that they fear the wrath of the parents on account of the reflection upon their moral character. To this we may reply that the true physician is looking only to the welfare of the child, and should not be deterred in this course, unless ab-

solutely prohibited by the parents. Still others will argue that the danger is magnified, and that in a long practice that they have never seen a case. Compared with the whole number of labor cases, the number of children having gonorrhœal ophthalmia is small, to be sure, but this rarity should not deter the physician from being prepared for the worst, any more than with placenta prævia or any other of the rarer complications of labor which the physician has never seen in a long practice.

The possibility of gonorrhœal ophthalmia should always be borne in mind by every one who delivers a child, no matter what the parents' status in life may be. Failure to do this has resulted in blindness to several children to my personal knowledge. The case I have already cited is a fair sample, and every oculist has seen similar ones.

Now suppose the prophylactic treatment for the prevention of gonorrhœa has not been carried out, and you have on hand a case of the disease. What will you do for it? Right here I want to say that I believe it is best to consider every case of discharge from the baby's eyes a case of genuine gonorrhœal ophthalmia. Not that every case is, but the majority of them are, and the majority will suffer no harm by being treated as if they were a case of the major disease. In my experience that stage of gonorrhœa which is known as gleet, results in a mild form of gonorrhœal ophthalmia in the child, so mild, in fact, that it might be readily attributed to other causes, and yet if the mild case is not treated with energy and persistence in the beginning, the germs acquire a new virulence in the baby's eyes, so that what may have begun as a mild case may end most disastrously if treated differently.

Formerly I detested these cases because they occurred in the very poor who had no means to employ nurses, and could not carry out intelligent treatment themselves. I had to visit them two or three times daily, and in some cases, in spite of all that could be done for them, the eyes were lost. All the compensation that we generally receive in these cases is the consolation that we have saved a pair of human eyes. No small matter to be sure, but still the amount of time and anxiety was more than a busy physician should be called upon to give gratis.

Especially was the result likely to be unfavorable in a poorly-nourished, bottle-fed baby. But since the introduction of argyrol and its proper method of application known, I no longer dread these cases. Just how argyrol acts we do not know, but it certainly acts with great efficiency in this disease, and where I formerly visited these cases two and three times daily, I now visit them once daily or even once every other day. The remedy should be used very freely. Several drops

instilled into the eyes every 15 or even 10 minutes, according to the severity of the case, from a freshly-prepared 25% solution. The drug seems to be quite unstable and should be made anew every 4 or 5 days, and kept out of the light. No cleaning of the eye is necessary. As the discharge decreases the frequency of applications can be lessened. If the lids are swollen, iced-compresses should be used in addition to the argyrol, until the swelling subsides. This frequent attention day and night may disturb the child's sleep for the first twenty-four hours, but seldom does much after that; at least, not enough to interfere with its nutrition.

This treatment is so simple that there can be found in any household, one person, at least, intelligent enough to carry it out. Besides, the remedy is absolutely harmless. The eyes could even be bathed in it without injury. I have never seen a case of corneal involvement where argyrol was freely used in the beginning of the disease.

In the gonorrhœal ophthalmia of the adult, however, the story is a different one, for here the disease follows a more severe course, and in spite of every care and remedy, the eyes in these cases sometimes go from bad to worse. Here it may even be necessary to make a putty dam below the eye so as to form a small reservoir to hold the argyrol in contact in considerable quantity. The swelling of the lids may be so great that canthotomy is needed, or the conjunctiva so chemotic that puncturing it may be required. I would advise the general practitioner, however, to have nothing to do with cases of gonorrhœal ophthalmia in the adult; he should leave the responsibility with the oculist.

Nurses who have charge of gonorrhœal infections of the eye should be particularly cautioned as to the dangers to their own eyes—dangers which can always be avoided by immersing the hands in a 1 to 1,000 bichloride of mercury solution, each time after using them, and the prevention may be doubly effective by keeping in mind not to get their own eyes too near the patients or touch their own eyes with their hands while caring for the case. Disregard of this rule cost one nurse an eye to my certain knowledge. She was cautioned not to fondle the baby in her care for ophthalmia neonatorum, but she disregarded the advice, and as a result, infected her own eye. In spite of everything we could do for her, she lost the eye, and now wears one made of glass in its place.

But as destructive as is gonorrhœa in the human eye, syphilis, in my experience, creates greater havoc in that organ. You ask how does syphilis affect the eye? I would reply that it is easier to explain how it does not affect the eye, for in that case there would be but little to say. There is no tissue of the eye too humble to be invaded by the

spirochete or its toxin, and this invasion may mean anything from a comparatively harmless chancre of the lid to a most destructive iridocyclitis or optic atrophy.

To be sure, gonorrhœa makes more blind babies than does syphilis, but where there is one baby made blind by gonorrhœa, there are at least one, if not two, adults made blind from syphilis, either in the form of optic atrophy — its most common one—or some other of the protean forms of ocular syphilis. The one great reason why gonorrhœa has been pointed out as the most common cause of blindness, is that those blinded from gonorrhœa are made so early in life, and are sent to institutions. Statistics of blindness are gathered largely from these institutions, but those blinded from syphilis, which is contracted for the most part, later in life, do not get into institutions, hence are overlooked in the reckoning.

Now what can the medical profession do to prevent blindness from these two great causes, syphilis and gonorrhœa? We have already considered the measures to be adopted in ophthalmia neonatorum and other cases of direct infection of the eyes from the gonorrhœal poison. Obviously whatever we can do to prevent the spread of these two diseases will have a correspondingly beneficial effect in decreasing the number of cases of blindness which they cause. But the problem of preventing the spread of these diseases is a sociological one in which the physician takes but a minor part. He must act more in the capacity of adviser and teacher. He cannot legally point out a specific case of one of these diseases and tell the public to beware. He must even sit helplessly by and watch innocent people contract these disorders, with all their destructive consequences. To teach the youth of the land about these diseases and point out to them their fearful consequences may accomplish some good, but to my mind it would have about as much influence as to ask the wind to stop blowing.

But while timely warning will not prevent contracting venereal diseases, teaching the public their consequences will result in earlier and more faithful treatment after they are contracted. The medical officers of the United States army have shown what great good prophylaxis will do in these cases, even after exposure to the contagion. An admirable paper on this subject appeared in the January, 1914, issue of the Journal of the Maine Medical Association, by Dr. W. H. Wilson, Ft. McDonald, California.

A rigid quarantine would no doubt control the spread of venereal diseases more than any other measures we have at hand at the present time, but such a procedure is not practical, for according to my idea of syphilis, a man put in quarantine because of it would never get out again. I believe as did the old German teacher who used to tell his

students that if a man contracted syphilis, he would have a syphilitic ghost.

But still let us not despair. While we cannot prevent the spread of gonorrhœa and syphilis, we can do much to lessen their ravages. The prophylactic measures above described will abolish ophthalmia neonatorum. Argyrol will cure those cases where prophylactic measures have been omitted.

Gonorrhœa in the adult is much less severe under the argyrol treatment, and if seen early and the treatment followed up persistently, few cases will go blind. The early and persisted treatment of both gonorrhœa and syphilis before they have already attacked the eye, will often prevent their doing so, and in those cases, where syphilis and gonorrhœa attack the eyes through the system, heroic measures will generally save these organs. For while with syphilis we have no cure the disease often abates its fury in the organ it is attacking to break out in some other part later. The eyes in this way often escape permanent injury, although the victim remains a syphilitic.

Personally I have but little faith in the power of salvarsan to permanently cure syphilis, and the more I see of the remedy the more convinced I am that we still lack a specific in this disease.

Let us hope that in the near future some virus will be found that will have the same happy preventive action in venereal diseases that vaccination has in small-pox. For if we can but eliminate these two diseases from mankind, at least one-half of the causes of blindness in the world would be removed.

DISCUSSION.

THE PRESIDENT: There are two gentlemen down on the program to open the discussion of this paper, and I will first call on Dr. Norton of Lewiston.

DR. NORTON: Mr. President and Members of the Maine Medical Association:—The subjects treated in the paper we have just heard are of the greatest importance to medical men and others.

The writer of the paper has presented the subjects in an interesting and instructive manner. While we know little about trachoma and while the disease is somewhat rare in Maine, still it is deserving of the most careful attention, not only from specialists but also from general practitioners. More cases are now appearing than formerly and within a comparatively few years I fear it will be quite common.

On account of the serious results of the disease and its contagious nature, cases of it should be recognized when first seen if possible. It is believed that the towels which are supplied in some schools for the use of the pupils are a fruitful cause of the transmission of the disease.

The prophylactic methods advocated in the paper are excellent and should be carried out in every case. I hope that the doctor is right in regard to removing the danger by douching the vagina previous to labor. Without doubt this will diminish the danger but it is evidently impossible to remove *all* of the

germs from the vagina on account of the structure of the organ. Its numerous folds may harbor many colonies of the gonococcus and some of these germs may enter a baby's eyes.

It is not safe for an obstetrician to believe that he has done his whole duty in preventing ophthalmia neonatorum when he has practiced what is called "aseptic midwifery" but which we all know is far from *aseptic*.

In regard to the prevalence of ophthalmia neonatorum it is impossible to obtain exact statistics but I will mention an experience that has a bearing on the subject. Some years ago the School Board of Lewiston employed me to make an examination of the eyes of the pupils. In one school there were one hundred and six pupils. Among these I found ten wholly blind in one eye or partially blind in both eyes from corneal scars. None of these could remember that they had had any inflammation in their eyes so that it is probable that in a majority, if not all, of these cases, the scars were caused by ophthalmia neonatorum. While this school was an exception to the rule, still partial blindness in one school of nearly ten per cent of the pupils should impress us with the serious nature of the disease. Without doubt there were, in the same district, other children who did not have vision that would permit them to study at all.

I have read an article, written by a gynecologist in New York, giving the results of an examination of the vaginal secretions of a large number of his patients; ladies of good families. He found the gonococcus present in 25% of the patients. This would indicate that we can not be sure that there is no danger of ophthalmia neonatorum even when the parents are of good family or even if the mother is free from active gonorrhœa.

During my active service at the Central Maine General Hospital, I gave lectures every year to the nurses, one of them entirely on ophthalmia neonatorum. I read the law in regard to the reporting of the disease. It is an excellent law but, like all laws, it is not self-enforcing. Some doctors and the majority of nurses do not know that there is such a law on the Statute Books.

I have found that nurses are, as a rule, extremely ignorant or indifferent in regard to their duties in attending cases of this disease. The case related by the reader of the paper illustrates a condition that is very much too common. I believe that if a doctor should leave or neglect his patient in the middle of difficult labor, he would not be so guilty as one who fails to see the baby frequently if ophthalmia neonatorum appears.

Unfortunately there is a form of infant's sore eyes which is not caused by the gonococcus and from which the baby will recover with little or no treatment. It is impossible in some cases to be sure whether the case is of the milder, or malignant type without repeated microscopic examination, which is difficult or expensive. For these reasons it is safe to regard every case as the virulent kind and treat it as such.

I hope the reader is right about the almost specific action of argyrol in the treatment of these cases but I must admit that I have not the courage to fail to see the cases frequently, even if I am using this most valuable drug. Perhaps I am too cautious.

That gonorrhœal ophthalmia may be communicated easily from one person to another is well illustrated by a case which occurred in a quack institution in New York. From one case of this disease the quack inoculated five other patients by using the same dropper on all of them. One man lost his eye from the disease.

While much can be done for the cure of diseases of the eye caused by trachoma, gonorrhœa and syphilis, there is only one sure cure and that is to prevent them before they appear. A native of the Emerald Isle said: "There is only one sure cure for rattlesnake bites and that is don't get bitten." Every year there are many innocent persons bitten by venereal diseases but a large part of these people are innocent because they are ignorant. The policy of silence about these terrible diseases by physicians and people in general is wrong. I believe that young people should be told about the dangers from these diseases. This will not prevent all of them from acquiring the disorders but they will understand the risks that they run. They will be neither ignorant nor innocent if they acquire the troubles. All of the middle and higher grades of schools should be compelled to give instruction in sexual hygiene.

I think that great good can be done, ultimately, by the lectures on "Conservation of Vision," which the American Medical Association is promoting. Some good has been done in this State already under the able leadership of Dr. Spalding but much more remains to be done.

THE PRESIDENT: I will ask Dr. Brown of Bangor if he will kindly continue the discussion of this paper.

DR. BROWN: Mr. President and Gentlemen: I think you will all agree with me that this paper presented this morning offers very little opportunity for detraction and it seems to me to have taken the matter up so thoroughly, that not much can be added.

Dr. Clough has brought out in this paper one point that I wish to emphasize, because of my own experience in the matter, and that is the point of the care of the new born child at its first cleansing. I have never heard this matter brought up before; but as a matter of fact, during my last years in general practice, I attempted to carry out pretty nearly the measures that Dr. Clough has recommended, allowing no careless washing of the infant's eyes, or the face about the eyes, and insisting upon a most careful attention to that for two or three days, permitting only a wiping of the eyes with clean linen, with perhaps the use of a little vaseline about the brows, nose, cheeks and eyes. After adopting that procedure, I not only saw no cases of gonorrhœal ophthalmia, which to be sure, are not very frequent in country practice, but the mild purulent condition of the eyes, which is not infrequent in the new born, also disappeared. I found that it was of considerable value, and I believe it has much to do with preventing disease of the eyes in the new born.

The matter of the treatment of gonorrhœa of the eye as presented by Dr. Clough, I have been very glad to listen to. I have not had the same favorable experience with argyrol that Dr. Clough has had, and I have become somewhat skeptical about argyrol as a perfect substitute for nitrate of silver; and even now, although very much reassured by this paper, I would not dare to discard nitrate of silver. Neither, perhaps, would Dr. Clough care to discard it. My experience with argyrol has been that, in some cases, it seemed to be all that could be desired in the treatment of these conditions. I have seen cases take a turn toward recovery that were not doing well under nitrate of silver; but I have more often, it seems to me, seen cases halt under argyrol that were doing fairly well under nitrate of silver, and have found it necessary to return to the nitrate of silver. The convenience and comfort of the argyrol treatment is, of course, a great deal in its favor.

In the matter of the prevention of blindness, this question of the prevention of venereal diseases, to my mind, holds a very important place. With the best

efforts of physicians, the ultimate consequences of venereal diseases upon the eye, especially of syphilis, cannot be prevented. So long as we have syphilis, we are going to have blindness from syphilis. If we aim to do away with blindness, we must aim to do away with syphilis. The position taken in the paper presented does not greatly credit efforts to prevent the spread of syphilis through public instruction, as I understand it. In this I cordially disagree. I cannot believe it possible that any man, having in his mind a vivid knowledge of the consequences of any act that is dangerous, will act exactly the same and with no more restraint than he would without such knowledge. I believe that our duty in this matter is to carry out public instruction among young men, and to carry it out with a thoroughness that will leave no doubt in their minds as to the terrible effects of this disease upon the eye. I do not believe our duty to the public will be done until we have exhausted every possible effort to instruct young men in this matter.

THE PRESIDENT: This subject is open for general discussion, and I hope we shall hear not only from specialists, but from the general practitioner, to whom this is as great a problem, certainly, as it is to those who are engaged in this special line of work.

DR. WARREN: Mr. Chairman—I speak for the general practitioner. I do not believe that twenty-five per cent of women have gonorrhœa. I do not believe that ninety per cent of the people have syphilis. Those figures are given to us constantly; we read them in the papers. I doubt them. Take it in obstetrics. The average woman who has gonorrhœa does not have children, in the first place. I doubt very much if there are a half dozen men in this audience who ever saw a dozen cases of ophthalmia neonatorum from gonorrhœa. I do not mean specialists; of course they see them. I have been practicing medicine nearly forty years, and I have never seen a case. The only two cases that I ever saw were not after labor, but I picked them up on the street. I have asked a great many obstetricians if they have ever seen a case of ophthalmia neonatorum from gonorrhœa, and they have said no. There are occasional cases of infection of the eye that may persist for a few days after labor, due to various conditions, but not to the gonorrhœal germ. I think sometimes we get infection of the eye from the nurse who uses too strong soap when she washes the child. But this question of ophthalmia neonatorum from gonorrhœa, pure and simple, I believe is a bugbear, and I do not desire to stop the wheels of progress any more than anybody else.

So far as argyrol is concerned, I believe we get just as good results from the old fashioned nitrate of silver. I heard a distinguished doctor say years ago that it did not make any difference how much nitrate of silver you put into the eye, if you only neutralized it afterwards. This question of every child having nitrate of silver put into the eye, I believe, is absolutely a humbug. I have seen patients in all classes of society, and I have never seen a case of ophthalmia neonatorum from gonorrhœa, and I have watched for it, too.

DR. SPALDING: I am very much interested, as you know, in conservation of vision, and I am going around about the State in various places and talking to the best of my ability. The most of the remarks that I have made have been to school teachers. I call attention to the law for the prevention of ophthalmia by the use of silver nitrate, or some astringent, and I urge that it may be done. This is for the interest of the physician as well as of the patient. If the physician does not do it as the law directs, there may come a time when he will be sued for malpractice for not attending to it. As for the patient, one

wants to prevent cases of this kind if he can, and thus preclude the loss of sight of one eye or the other. Also, no doctor cares to have a case of this sort to treat, because they are contagious, and dangerous to him as well as to the nurse. There are two nurses, if not three, in Maine now wearing artificial eyes as the result of infection from contagious cases of ophthalmia in infants. I think those cases might have been prevented, and thus those young women not have been compelled to wear artificial eyes.

The next point I would like to make is what syphilis does to the eyes. I have lately seen a practitioner who, while operating on a syphilitic patient, cut his finger and was infected. He has had at times miosis, or contraction of the pupil, so that he has been obliged to wear glasses, which he never did before; and in the second place, he has had a paralysis of the external rectus amounting to some thirty degrees, so that he was obliged to cover one eye to keep the sight of the other eye useful. He has had four injections of salvarsan, two injections of neosalvarsan, and one injection of salvarsanized serum, and the result of it has been very remarkable in that an absolute cure has been obtained. I think this speaks very much for the benefits of salvarsan and of salvarsanized serum.

One thing more and I have done. I am expecting to meet the superintendents of all the schools in Maine at Castine some time in July, and at that time I intend to talk on the conservation of vision from the point of school hygiene; and among the most interesting things is blackboard work and the strain of the eyes from changing from near work to work on the blackboard.

I hope you physicians who are listening to me will bear in mind that the committee of one on the conservation of vision in the State of Maine is always glad to talk on the topic, and there are eighty different ways of looking at it and talking to physicians; and, if any of you at any time know of any women's clubs, or civic clubs, or any physicians who wish to hear further about it, the committee will be very glad to furnish somebody to speak on that topic.

DR. DUNN: While I have been practicing medicine a little longer than Dr. Warren, I have not had so many baby cases. I have seen but one case of gonorrhœal ophthalmia in forty-six years of my own private practice and that was some ten years ago in this city. I have often wondered if the reports of so large a percentage of men having had some form of venereal disease was true.

DR. STANWOOD: I presume I have had my share of obstetric cases for a general practitioner for the last six years. Living in a large manufacturing town, I have quite an extensive obstetric practice, and must needs say that I must take sides with Dr. Warren and Dr. Dunn as regards the frequency of gonorrhœa in the new born. I attend all classes and kinds of women, many of them where hygienic conditions are at a very low ebb. I must needs say that I have never met in my life a case of gonorrhœal neonatorum. I have attended women whom I know have had gonorrhœa, and I have attended men whom I know have had it. The wives have had children, I presume legitimate, and those children never had any gonorrhœa. I have had some cases of specific vaginitis in the children which I have thought was gonorrhœal vaginitis, and have treated it as such; but when it comes to the eye, I have never seen it. I agree with Dr. Clough in his paper very largely, especially in his prophylactic treatment, and also in his general treatment. In my treatment, it has always been argyrol, and never nitrate of silver. I do not agree with the doctor in one thing, and that is in his casting aspersions upon the general practitioner in treating these cases. There seems to be a disposition among those who make it their

business to specialize on various parts of the body, to throw over the general practitioner. I do not know of any rule, any regulation, or any law that compels me to turn over my cases of gonorrhœal neonatorum to an ophthalmist. I have been taught by reasonable and conservative men, and I have been able to read papers and the journals, which I take largely, and it seems to me that, as a common sense man, I can read as intelligently as the ophthalmologist. There is nothing hidden in the treatment. It seems to me that the general practitioner, if a reasonable man, can treat these cases without turning them over. The specialist in all lines is turning down the general practitioner. He delegates to himself different areas of the ear and eye. There is a whole lot in the eye business, I will admit, and I will admit that the eye man is far more skilled in that line than the general practitioner; but that is no reason why the latter should turn over his private practice to any specialist. I believe that the general practitioner has more obstetric cases than the oculist, and I believe that his general foresight and experience, after he has been in the business long enough, will give him as good results in general treatment as the specialist.

I think well of the paper; I think it timely. I think these things should be talked over here and generally discussed; but I must certainly, after thirty-six years' practice, coincide with Dr. Warren and Dr. Dunn.

DR. J. F. HILL: Mr. President—It was not my intention to take up the valuable time of this convention in discussing this paper, but after listening to the remarks of my good friends, Drs. Warren and Stanwood, I am tempted to say just a few words. While I have the greatest confidence in Maine's leading obstetrician, I must confess my surprise at the position he has taken for I do not believe that there are many who are attending the mothers in this most important function, the new-born, who can truthfully claim the same amount of success he has had in steering clear of ophthalmia neonatorum. That there are many practitioners who neglect the common duties to the new-born, there is no doubt, for in my vicinity, I am frequently consulted by mothers who bring to me a child who has lost one or both eyes, which have all the indications, from the history gleaned from the mother, of having suffered with this great affliction. I do not think that any specialist in Maine has the disposition to minimize the value of the services of any general practitioner in the care of these cases, for they certainly should be competent to treat them and as far as I am concerned, they are welcome to do so, for it is a disease that I do not care to have anything to do with but always stand ready to advise the family physician in the treatment of the same. In my opinion, a large percentage of the blind children, due to some discharge of the eyes, are from this disease but the lack of microscopical examination of this discharge of course prevents us from stating positively that the gonococci are present, and for this reason we cannot maintain that we know that they are all cases of ophthalmia neonatorum. I know of nothing that will so rapidly destroy a cornea as gonorrhœal ophthalmia, but I believe that if every general practitioner could report the same result as Dr. Warren has this morning, there would not be very much blindness in the State of Maine. I do not think any of us specialists take seriously the remarks of Dr. Stanwood, in that the specialist is trying to down the general practitioner.

DR. HOLT: I am sorry that I did not get here soon enough to hear Dr. Clough's paper.

In regard to the discussion of this paper relative to the treatment of ophthalmia neonatorum, to which I have listened since I came in, I would say that

in a discussion of this subject in the national organizations, nearly everyone said that they regarded nitrate of silver the most dependable remedy we have in this disease. The consensus of opinion was that a solution of one per cent was sufficient for all purposes. I think that nine out of ten of the men who are treating these cases in the United States would use nitrate of silver in preference to any other drug.

In reference to what Dr. Stanwood said about these cases, I would say that I have advocated the ocular douche because I have found it very efficient, and I see no reason why the general practitioner cannot use it successfully. I came to use it in a very severe case that came to me in the evening from the late Dr. Fuller of Bath. The lids of the child were enormously swollen and the cornea had become involved. The mother implored me to do everything possible to save the baby's eyes. As preliminary to cutting the lids, to relieve the pressure on the cornea, I directed the nurse to use comfortably hot normal salt solution with a Davidson's syringe, employing the smallest point to insert under the upper lid at the outer corner and gently syringe a quart around under the lid, washing out the retrotarsal fold thoroughly every two hours during the night. In the morning, to my surprise, the swelling of the lids had subsided so much that I did not deem it necessary to do the operation. I continued the use of the douche and the application of a solution of nitrate of silver, and the baby got well with good sight. After that I used the douche of normal salt solution on all my cases with uniform success, and I read papers upon the subject before the New England Ophthalmological Society and the Section of Ophthalmology of the American Medical Association, advocating this treatment. I think the general practitioner should use a solution of nitrate of silver early, as advocated by Credé, and if there is swelling of the lids with discharge, the douche should be used thoroughly. Cleanliness is next to godliness, and the importance of keeping the eyes free from the discharge by this method can hardly be over-estimated. Of course cold may be used to subdue the inflammation, but it should be remembered that cold, if continued too long or repeated too frequently, devitalizes the tissues of the cornea and causes them to break down. The rule, if observed, of applying cold for say five minutes, and then leaving it off for four or five times as long, will avoid bad effects generally. I am not partial to the use of cold in these cases, but if rightly used benefit may be derived from its use.

If there are any divergent views between the general practitioner and the specialist on the subject of the conservation of vision in the new-born, I think it must be caused by a misunderstanding. I can hardly think it exists. The oculist would be glad to have the general practitioner take care of cases of ophthalmia neonatorum if he so desired. The trouble is that the general practitioner is often not called until the disease has made such progress that he does not want to assume the responsibility of the treatment alone. Then again, he sees so few cases and is so busy otherwise that he does not care to assume the responsibility of watching the eyes for the serious complication of involvement of the cornea in ulceration which destroys the sight.

THE PRESIDENT: It is, theoretically, not proper, of course, to place any limit upon the number of people who shall discuss any one subject. Conservation of vision is one of the most important things in the world; but with us conservation of time is also important; so I think I will take the liberty of asking Dr. Clough to close the discussion of this paper.

DR. CLOUGH: Mr. President—I do not think I will take up any more time. I want to say that I do not think Dr. Stanwood listened to the paper very carefully when he got the idea that the specialists asked that these cases be turned over to them. I said in cases of gonorrheal ophthalmia in the adult—not of ophthalmic neonatorum—that it seemed to be a courtesy for the specialist to offer to take them because they often go from bad to worse in spite of all that can be done. So far as I, as a specialist, am concerned, I much prefer for the general practitioner to keep them. I certainly do not want them. The results are too bad.

***HOUSING AND ITS RELATION TO CLIMATE AND HEALTH.**

ESTES NICHOLS, M. D., HEBRON, ME.

In census terms, a dwelling is any building in which one or more persons reside, and a family is a household or group of persons, whether related by blood or not, who share a common abode.

Housing and its relation to national vitality and health is a problem closely related to climate, and a matter in which each one of us should take an active interest.

One of our national characteristics has been the spreading of the population of our cities upward instead of outward, and another characteristic is known as "The call of the city." Americans, as a people, are not willing to exchange the amusements of the city for the quiet and repose of the country. As an example, New York has set the pace for both of these characteristics. In the borough of Manhattan the census figures show an increase from 23 persons on an average to a dwelling in 1900, to 30.9 in 1910. This purely means house overcrowding as well as land overcrowding. What is true of New York is true of most of our cities, and even in many of our towns and villages, while land overcrowding is not very common, yet house overcrowding is very common, due partly to an improper understanding of sanitary laws, and the national characteristic of the drifting of our people to town and city centers.

If we can change this American tendency and succeed in spreading the population outward instead of upward, many of our housing problems will be solved. This must come through city planning schemes, which means the intelligent directing of the growth of our cities outward, where there is plenty of space, fresh air and sunlight, and where there is at least no land overcrowding.

*Read before the American Climatological Association, at Atlantic City, June 19, 1914.

Household skyscrapers are more common and taller in America than in any other country. This intensive use of city land has resulted in the building of homes one on top of the other many stories high, with many small rooms that can only be compared to prison cells or Pullman berths in size, and frequently in which mothers cannot give birth to a child, because there is no room for the doctor to work.

These houses with many rooms, looking out on nothing but walls, and shut in courts, filled with stagnant air and odors, giving no aid to ventilation, and where direct sunlight never enters, must be an unnatural, unhealthy, and unwise method of housing our people.

Each of us knows the relation of improper housing to tuberculosis, typhoid, and the other infectious diseases, and each one of us knows the relation of improper housing to infant mortality and vice. If it can be shown that there is a co-relation between tuberculosis, typhoid, alcoholism, syphilis, insanity, infant mortality, and overcrowding in unsanitary dwellings in our large cities, is it not a question whether our public money should not be expended in solving the housing problem, rather than expending large sums on sanatoriums and homes for the feeble-minded and insane hospitals?

Should not our studies in climatology be directed toward city planning, especially as to housing and ventilation, play-grounds, and breathing spaces for the masses, rather than to some specific climate for the wealthy health resorters, many of whom desire only a place in which to play?

Is it not our duty to guide and shape a national tendency toward a saner city planning and better housing scheme as an American characteristic, especially in showing the manufacturer and business men that good houses mean more efficient workers; the family head that better houses mean a better chance for his family; and the social worker that better homes mean fewer social problems?

We all understand that the working class is our most useful class of people, and also that they are housed in the poorest manner. Is it not the business of towns and municipal governments to see that the houses in which the working people live are sanitary in their construction, and so built in relation to each other that they may get the best climatic effect, viz.: that every room must be easily ventilated, and that they must have not only light but sunlight?

Is it not their duty to prevent overcrowding? For it has been shown by sanitary experts that infant mortality is very much greater in overcrowded houses, and while children under five years equal only one-ninth of the population, yet they furnish one-third of all the deaths. Infant mortality varies uniformly with housing conditions, but the

most pitiful victim is not the child who dies, but the child who lives under these conditions.

Is it not the duty of our health officials to see that the population of our large cities, when they are twice as large as they are at present, are spread out over more than double their present area, rather than pushing them up in the air to double their present height?

The spreading of our cities outward, of course, means the solving of many problems, especially transportation facilities, as well as sewerage problems; yet I believe there is no other country in the world so well prepared to meet these problems as our own.

Is not the most frequent cause of our winter epidemics of infectious diseases due to overcrowding, caused by the pouring into our cities of laborers from the country when the ground freezes in early winter, and who hire rooms in the sections of towns and cities where the housing conditions are the poorest?

These epidemics have frequently been ascribed to the blowing of dust from the uncovered frozen streets. I have often wondered whether the fifty-seven varieties of New England weather are responsible for many of the ailments to which it is credited, or are they due to improper housing and room overcrowding? If they are due to the latter, why should not the Boards of Health have the power to correct these conditions as a preventative measure even as our infectious diseases are quarantined to prevent them from spreading? Instead of this, workmen and others are told not to spit and various other advice, which is considered the proper way of preventing these diseases.

Is it any wonder that the wealthy leave their homes at this time of year and go to health resorts to escape their home climate? How long would the health resorts remain as such if they should take along the housing conditions with which they are surrounded at home? Let us be frank with ourselves and consider whether health, after all, is so much a matter of climate as it is a method of living, especially housing.

Will any climate endure the housing conditions of most of our towns and cities, and if the advantages of our health resorts, namely, in wealth, why should we not apply some of these principles to our cities? Surely, they would pay a good dividend in health return.

How often we see a journalistic controversy as to the comparative size of two cities, while really the need of every great city is, not to grow larger but to grow smaller, or in other words, to spread the people of our metropolitan districts over double the present area. Let us hope the future growth of our cities will be a centrifugal and not a centripetal movement.

The massing of a great number of people in a small area may benefit the hotels, theatres, and department stores, but it injures every-

body else. It may be a gold mine for them, but why other people should boast about our big cities is a mystery, under the present conditions of housing. Is not our present system of apartment homes placing a premium on the rearing of children; for many of them are manifestly unsuitable places for children, and landlords will not admit people with children in the ones that are suitable.

At one time houses were used for babies to be born in, to be reared in, to be comfortable and healthy in; but are not apartment houses doing more to destroy the idea of permanency in the American homes than any other thing? Without children you cannot make a home, and without a home what have you got on which to base a family life?

Is climate responsible for the condition of housing which the reader has mentioned? Are not our housing conditions due to the energy and enterprise of our business men who are unguided and untaught concerning the relation of housing to climate and health? Can any climate rise above its housing conditions?

I offer no theories to be applied to the building of houses, as all theories are pretty apt to be overthrown by each succeeding year. I only offer the one fact which has been so well established, and that is, the vital necessity of plenty of room, as well as plenty of light and air, even to the remotest part of our dwellings. Any plan that will prevent house overcrowding and land overcrowding, must surely prevent air overcrowding and sunlight overcrowding, both of which are so necessary in the fight for the health of the American people.

***CONFUSING RELIGION WITH MEDICINE.**

BY T. J. STEVENS, AUBURN, ME.

In approaching this subject we should keep this fact ever in mind, we are not going to discuss the various creeds as such, or the various theories of medical practice. It has only to do with the confounding of religious thought on one hand with medical thought on the other. This may seem to confine the question to a narrow field, but a glance at history will show that the confusion of these two distinct fields of endeavor is as old as human history and this mistake has been made by some of the greatest and ablest men.

Until the last half of the fourth and the beginning of the third century before Christ the practice of medicine was wholly in the hands of the priest physicians. It was in those years that the Greeks gave to the world four of the world's greatest philosophers. One of them,

*Read before the Androsceoggin Medical Society, November 3, 1914.

Hippocrates, was the first to place the practice of medicine on the scientific bases of observation and experiment; his great gift to the world was to first separate medicine from priest craft and superstition. In his writings he states that, underlying all his practice, was the conviction that, however diseases may be regarded from a religious point of view, they must all be scientifically treated as subjects of natural law.

The boldness of his teachings will be more fully appreciated when we recall the fact that, more than 2,000 years later, Martin Luther, the great German religious reformer, taught that the devil sent diseases which had no natural cause and could be cured only by spiritual medicine found in the Word of God through religious belief and prayer. And Samuel Hahnemann, the German physician who founded Homeopathy, taught that, it is only by means of the spiritual influence of a disease-causing agent that our spiritual vital power can be diseased and, in like manner, only by spiritual operation of medicine can health be restored and that trituration and agitation developed a spiritual curative agent. But let us come down to our day. In Loundes, France, there is a spring of water in a grotto. It is believed by some that the water from this spring was made sacred by a revelation made by the Virgin Mary to a peasant girl in 1858. Multitudes of people from all quarters of the world go every year to Loundes to be cured by this water. The walls of the grotto and the rocks projecting above it are covered by crutches of the happy multitude who have gone away with no further need.

In Australia, therapeutic power belongs to a man who, as a child, had a vision of a demoniac god. From the demon, he receives the power of healing the sick. He touches the painful parts and rubs them and, after a few minutes, shows a little piece of wood which he claims to have extracted from the body of the sufferer. The native feels actually cured after such manipulation, while the doctor himself apparently believes in his power.

Mark you! the Australian pagan receives his revelation from a demon and from our point of view cures by deception. The water made sacred by the revelation of the Virgin in Loundes does no more.

Recently a United States senator from one of our largest and wealthiest States spoke in the Senate for two days, in opposition to the establishment of a federal health department. In that speech he said: "Disease is wholly mental. The material body without mind has no sensation. Hatred, fear and other wrong thoughts are the breeders of disease. If the people could be taught to think and talk health and not disease, faith and not fear, a health department need not be thought of." "Because," said he, "if they had faith in God instead of the doctor and his remedies, disease would be unknown."

The Senator's conclusion was reached by confusion of thought. But did he stumble much more in his thinking than that eminent physician who, in a recent article on Christian Science, expressed the thought that religion might often be found in the same field of endeavor as medicine?

"Having to do with obedient service to a superior power" is the abridged definition of religion found in the century dictionary. When Christ was asked which was the greatest commandment in the law, he said, "Thou shalt love the Lord thy God with all thy heart, and with all thy soul, and with all thy mind. This is the great and first commandment. And the second is like unto it. Thou shalt love thy neighbor as thyself. On these two commandments hang all the law and the prophets." The ancient Hebrew said, "What doth the Lord require of thee, but to do justly, and to love mercy, and to walk humbly with thy God?" We find in both the Old and New Testaments the same thought expressed in different words as the dictionary definition of religion.

The science which relates to the prevention, cure or alleviation of disease, is the science of medicine. A statement of fact may aid in understanding this difference more clearly. The press recently announced that Dr. Wickliffe Rose, secretary of the Rockefeller Sanitary Commission, had left for Egypt to undertake a campaign against the hookworm disease. Dr. Rose is concerned with an object. The first thing for him to determine is the cause. That is what he wants to describe and explain the inner physiological life of those Egyptians. Then he wants to effect a change in that life. Change it from an abnormal to a normal condition. His whole concern is with cause and effect, the realm of medicine. Suppose that after Dr. Rose has expelled the hookworm from the Egyptians and Egypt, he says, "These Egyptians do not love their neighbor as themselves. I am going to stay here and teach them the religion of Jesus Christ." He is no longer concerned with material things, he wants those Egyptians to share his inner spiritual life and he treats it as a subject. He is then concerned, not with cause and effect, but with purpose and ideals. This is not saying one is higher than the other or more important, but they lie in different fields and, by confused thought concerning them, Dr. Hiemann makes his drugs religious by shaking them. If religion was the thing sought, undoubtedly the results obtained were as happy as they would have been had the shaking been applied to his patients. Martin Luther's reasoning will not fit modern philosophical ideas for various reasons. All diseases, like all material things, are from natural causes. The only supernatural element is their causation or as an eminent philosopher puts it, "the first great cause." The disease itself belongs always to the organism. The mind reflects only symptoms of the disease. Removing mental symptoms does not cure diseases.

It is not enough to say that a thing is true or not true, as a thing may be true in one sense and meaningless in another. When the Senator said that faith in God would make disease unknown he implied faith used in a religious sense and lying in the region of the Church. Faith in the physician's prescription, finally overcoming an intestinal disturbance, has nothing to do with religion, but lies in a different field of endeavor, that of medicine. Martin Luther's prayer in the sense used had no higher significance than a dose of sodium bromide. But we are told that Jesus cured disease. True! when he spat on the ground and made clay of the spittle and anointed the eyes of the blind man with the clay and told him to go wash in the pool of Siloam and the blind went and washed and came seeing. Those acts of themselves contained no religious significance. First, he acted in the capacity of a pharmacist and then as a physician. He was a carpenter, and, just as reasonably, could we construe his building a house as a religious act as His healing the sick.

Prof. Hugo Munsterberg tells us that belief in the supernatural energies has cured disease at all times and among all people and the treatment of disease by influence on the mind is as old as human history. But we should keep clearly in mind that it is the suggestion made by belief that effects the cure. The same results are obtained among the masses in China where mental and bodily diseases are ascribed to the fox, which plays a great part in the superstitions of eastern Asia.

The priest has the power to banish the fox by mystical writings which he pastes on the wall of the sick room, the patient recovering as the fox has to leave his body.

Failure to clearly distinguish between the natural and supernatural has played no small part in the confusion in the subject before us. There is no independent or self-running nature. Whatever Nature does represents that which has been determined to be done by the power beyond it. There are two distinct questions concerning what we call Nature. First, nature is only a general name for the system in which we trace familiar laws and all of their laws and interrelations in general are natural. Second, the causality from which it proceeds is supernatural.

The clairvoyant calling up the spirits, the astrologer receiving information from the stars, profess to possess supernatural power, hence their great suggestive powers.

Dr. Worcester, the apostle of the Emanuel Church, writes, "to use suggestion successfully we must have faith in the soul and its powers and must cultivate our own moral nature." But Dr. Worcester should remember that the priest cures disease in China by banishing

the fox by mystical writing and the monks in the Old Japan Mountains cure diseases with magical paper covered with writings and pictures of birds quite as well as he does. As Dr. Worcester treats wholly by suggestion and history furnishes abundant evidence that the heathen cures equally well by using his fetish, it is hard to see what Dr. Worcester has gained over the savage by using the religion of Jesus Christ as a suggestive influence in relieving the sick from pain and curing their diseases.

Our Christian Science friends cure diseases by belief in God because a true belief in God includes the insight that God is all reality and that reality therefore cannot include the ungodlike, that is, error, sin and disease. Disease is thus recognized as unreal and if it becomes unreal, of course it has disappeared as a part of our real life. To quote from Mrs. Mary Baker Eddy's writing, "Christian Science reveals incontrovertibly that mind is all-in-all, that the only realities are the divine mind and idea." That is, "these bodies of ours with which we deal in our life are ideas and that our whole experience is mind." Mrs. Eddy says she discovered this Christ science or divine laws of life and named them Christian Science and God has graciously fitted her for the reception of a final revelation of absolute divine principle of scientific being and healing. But why is this discovery dedicated to Christ?

Science has the world of temporal and spatial phenomena for its field. It must discover the facts, their contents, their spatial and temporal laws. It lies in the objective, and has to do only with cause and effect. This applies with equal force to healing. But Jesus said, and emphasized it, that on loving others hangs the whole law and the prophets, which is in no way concerned with the objective or cause and effect but is subjective and has to do with purpose and ideals.

As an illustration of the absurdities into which one may be led by a confusion of religion with physiology, I will close with an incident of which I was a witness. A lecturer on Christian Science said, "There is no such thing as pain, friends. Just stop and think of it. Most of your body is water. Is there any pain in water? The remaining part is made up of salts and ash. Is there any pain in those salts and ash? Take and make a nice pill, put it on a platter. Can it aid you any?"

Suppose our Christian Science friend had taken bread and called it nothing, water and called it nothing, his body nothing, his persistent saying that they were nothing would not fail to make him fully aware that bread nothing was quite essential to prevent hunger, and water nothing to prevent thirst and that food and drink are really something absolutely essential to keep the body in a normal state.

ECONOMIC CAUSE OF DISEASE.

ABSTRACT FROM SPEECH OF SURGEON-GENERAL WM. E. GORGAS,
AT THE DINNER IN HIS HONOR, SEPTEMBER 26, 1914,
AT THE BUSINESS MEN'S CLUB, CINCINNATI, OHIO.

"Sanitation, in my mind, has been very closely associated with single-tax. I am a single-taxer, I think, because my life work has been that of sanitation. Sanitation is most needed by the class of people who would be most benefitted by the single-tax. That poverty was the greatest single cause of sad sanitary conditions was very early impressed upon me. If I should again go into a community, such as Cuba or Panama, and were allowed to select only one sanitary measure, but were at the same time given power to choose from all sanitary measures, I would select that of doubling wages. This, in my case, is not altogether theory. In our tropical possessions, in Cuba, Porto Rico, the Philippines, Panama, the result has always come about that we have largely increased wages: the result has also come about that in all these cases we have greatly improved sanitation. At Panama, the Commission found that in order to attract labor, and keep it on the Zone, they had to increase wages, and within a very few months double the wages of the manual laborer. It does not take more than a moment of thought to show you how such a measure acts and reacts. Results take place in many directions, but particularly with regard to increasing ability of the people to live well and get better food and better clothing. While dwelling upon thoughts such as these, I came across 'Progress and Poverty.' I was greatly impressed by the theory and was soon convinced that the single-tax would be the means of bringing about the sanitary conditions I so much desired and was striving for. It was impressed upon me in a concrete form everywhere, in the United States, in the tropics, and particularly in Panama, the great benefit that some such scheme of taxation would confer upon sanitation.

"In a city such as Panama or Havana, the vacant lots and unimproved neighborhood were the localities which always gave us most sanitary trouble. I was soon convinced that if any scheme were brought about whereby it would be disadvantageous for speculators to hold vacant places out of use, this scheme would be of the greatest value for sanitation. It was not possible to effect this change in method of taxation in the cities referred to. I discussed this method of taxation a good deal with the officials of Panama urging upon them the desirability of a tax levy of this kind to cover expenditures brought about by the sanitary work. I finally got the Panama authorities around to the point of seeing the justice and advisability of such methods, but the organic law would have to be changed and this always

takes time. I hope that something of the kind may yet come about in Panama.

"The real scope of tropical sanitation which has been almost entirely developed within the last fifteen or twenty years, I believe, will extend far beyond our work at Panama. Everywhere in the tropics, to which the United States has gone in the past fifteen years, it has been shown that the white man can live and exist in good health. This has occurred in the Philippines, in Cuba and in Panama, but the demonstration has been most prominent and spectacular at Panama, and, therefore, has attracted there the greatest world-wide attention. Here among our large force of laborers, we had for ten years some ten thousand Americans—men, women and children. Most of these American men did hard manual labor, exposed to the sun, rain and weather conditions day in and day out, yet during that time their health remained perfectly good, just as good as if they were working at home. The same remark as to health would apply to the four thousand women and children who lived at Panama with their husbands and fathers. Both the women and children remained in as good condition as they would have been had they lived in the United States. This construction at Panama, I think, will be generally received as a demonstration that the white man can live and thrive in the tropics. The amount of wealth which can be produced in the tropics for a given amount of labor is so much larger than that which can be produced in the Temperate Zone by the same amount of labor, that the attraction for the white man to emigrate to the tropics will be very great when it is appreciated that he can be made safe as to his health conditions at a small expense. When the great valley of the Amazon and of the Congo are occupied by a white population, more food will be produced in these regions than is now produced in all the rest of the inhabited world.

"But unless we can so change our economic laws, that this wealth will be more fairly distributed than it is now by the races occupying the Temperate Zone, mankind will not be greatly benefitted. I hope and believe that ere this change in population comes about, the single-tax will have caused such changes in our economic condition that wealth will be fairly distributed. I mean by fair distribution that condition in which each man gets exactly what he produces—no more, no less. This is all we single-taxers ask. We do not wish any man to have a dollar more wealth than he himself has produced, or to take from any other man a dollar of the wealth that this other man has produced. We look forward to this time as not being so very far off, and when such time arrives, we believe that poverty will be abolished from this world, except in so far as there will always be some lazy individuals who will not work and who do not care to produce. But this number will not be so large as to affect the general principles just enunciated."

JOURNAL OF MAINE MEDICAL ASSOCIATION

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Editorial Comment.

State Reformatory.

The Maine Prison Association is to ask our legislature, this winter, to establish a State reformatory for women. That we need such an institution is evident to anyone who examines our social conditions.

There are, in every town and city in Maine, young women, many of whom come from the country, who have fallen into bad company and thereby drifted into the class described by the court as "idle and disorderly persons," from which condition the last step into a life of habitual vice is an almost certain one.

It is the fault neither of our police nor of our judges that no restraining hand arrests those poor girls as they enter the wide road which leads to mental, moral and physical death.

Of what use is it to bring them before the courts when our State provides no better place for the reformation of girls over 16 years old than afforded by the county jail?

Our judges frankly say that they cannot feel it right to sentence a young woman, in whom there is a ray of hope left for a better life, to the contamination of such an institution, so the result is, that many girls, who ought to be saved by institutional care and training, are left adrift on our streets to spread moral contagion.

Every judge, every sheriff, every police officer in our State recognizes the need of a more efficient way of dealing with delinquent women and the present plan, as outlined by the Maine Prison Association, of a group of cottages in the country where, under guidance, the girls can learn to sew, to do housework, and to raise vegetables

and flowers, in short, to live a busy, useful and happy life, until they have outgrown their old thoughts and habits, commends itself as a wise one.

On the ground of economy alone, such an institution is for the advantage of a State, for, invariably, the victims of the social disease come back upon the community for support, while their degenerate children swell the long list of unfortunates to be found in our asylums.

Some of our leading medical societies have already taken action to obtain a Woman's Industrial Home and Reformatory and others will doubtless follow in calling our legislature's attention to the impressive need of such an institution in Maine.

County Societies.

It is gratifying to note with the beginning of the new year the increased activity in the county societies. The reports coming in from the secretaries are more complete and should stimulate the members to a larger attendance. An up-to-date physician cannot well afford to lose these meetings and once he has formed the habit of attending them regularly, he will not only benefit by so doing but he will aid the organization in carrying on its work.

The following is taken from a notice of the quarterly meeting issued to the members of the York County Medical Society. "A large attendance is desired and each member can assist in attaining this object. We have at the present time a membership of approximately 70 per cent of the eligible physicians in York County. Let us try earnestly to approach more nearly the 100 per cent mark. We should be able to make the coming meeting the best, altogether, of any in the 20 years that this society has been organized, so as to get a first-class start in the New Year, 1915.

Our number is increasing steadily, and it is important that the good work in this line be continued. New applications for membership will be presented Jan. 6th.

It will be in many respects an enjoyable and instructive program.

Remember the date, lay aside your worries, show your interest in the Society's welfare, inject some encouragement, and surely plan to come if possible. You will feel well repaid, and realize that your time has been used most profitably for the benefit of yourself and of your fellow-workers in the medical profession."

This should set the members to thinking and arranging for the date. We believe that this wide-awake secretary should be given a permanent position. His plan is well worth trying.

Poisonous Fly Destroyers.

The December issue of the Journal of the Michigan State Medical Society calls attention editorially to the danger of using poisonous fly destroyers.

From July 1 to Oct. 15, 1914, 45 cases of poisoning of young children were reported in the press of a few States and it is pointed out that the symptoms of arsenical poisoning and cholera infantum being very similar there are possibly many more cases of the kind. It might be well in view of this danger for physicians to eliminate the possibility of arsenical poisoning before diagnosing a case as cholera infantum. A few years ago there was considerable agitation against the use of phosphorous matches, partly because of some children being poisoned by eating or sucking the heads of the matches. There are doubtless many more cases of poisoning from the poisonous fly destroyers. Phosphorous matches have been abolished, so should be poisonous fly destroyers.

It seems this danger has already been recognized by the authorities in far away South Africa and the sale has been forbidden, except by licensed chemists, of certain arsenical fly destroyers, more particularly the tin boxes which have a wick or wicks through which the poisoned water is drawn. The fact that sugar is added to draw the flies makes these boxes especially dangerous to young children; furthermore all these poisonous fly destroyers are usually placed on the window sill and children as well as flies are attracted to the windows and the poisons are thus within their reach.

Both the blotting paper impregnated with arsenic, (which is put in an open saucer with water and sugar) or the tin boxes with wicks to draw the poisoned water to the surface are extensively used, and there is probably no poison so commonly and unnecessarily used where it is perforce within the reach of young children as these various arsenical fly destroyers. In country homes where it often takes some hours to get a physician, and even in our cities among the foreign born, where the parents are, as is well known, slow to call the services of a physician for childish ailments, the danger is especially great. There are as effective and more sanitary ways of killing flies. *Poisonous fly destroyers are an unnecessary evil and should be relegated to the past like the phosphorous match.*

Are Our Modern Methods of Treating Tuberculosis a Failure?

Dr. T. J. May, in various papers printed in the New York Medical Journal in the summer of 1914, asserted that modern methods of treating tuberculosis were a failure and that something new must be

discovered. In his opinion, our modern ideas are failures, and he denounces, in outspoken language, the time and money so far wasted in fighting this disease. As no one answered his remarks, Dr. S. A. Knopf finally paid them the attention which they deserved, and, in the same Journal for November 4, replied. He says he would not have paid attention to Dr. May's remarks at all, had they not been printed in the newspapers of the day, and in that way produced antagonism to the cause for which he is fighting.

As to the assertions from Dr. May that there is no evidence of contagion amongst physicians, families or nurses, Dr. Knopf asserts that there are innumerable facts to the contrary in the knowledge of every physician, and equally of the laity. Hospital statistics also show that when tuberculous patients were placed in general wards, other patients contracted tuberculous implantations. Mention is also made of contagion to various wives, from a single tuberculous husband.

To Dr. May's assertion that underfeeding, lack of light, and bad sanitation are overlooked causes of tuberculosis, Dr. Knopf retorts that he has seen more than a single case in which the rich or the well to do have contracted tuberculosis and even died from it. He also emphasizes the undeniable fact that the rich and well to do have been cured in sanatoria and have, in gratitude, given money for the foundation and support of similar institutions.

Dr. May claims that fifty years ago more cases of tuberculosis were cured than are cured today and to this, Dr. Knopf replies that cases now are diagnosed scientifically; whilst in former eras they were guessed at; so that tuberculosis was not cured, but some other disease.

Dr. May bemoans the millions spent in useless treatment of tuberculosis and asserts that it still persists despite the promises made that it should be swept off its feet in twenty years; and to this Dr. Knopf retorts that rash promises should not have been made, and that it is the most difficult thing in the world to get these cases under early treatment, which is the only chance for a cure. And to the assertion that sanatoria are nothing but prisons, and that no one should be imprisoned because afflicted with disease, we have the answer that public safety demands the segregation of all advanced cases of tuberculosis as much as if they were of the plague. But modern crusaders against tuberculosis have no feeling against the tuberculous and are simply trying all in their power to relieve their sufferings. Altogether, these papers, together with a still more recent rejoinder from Dr. May in December, call for earnest reading from those who are interested in the study of the best means of preventing or curing tuberculosis.

The American College of Surgeons.

This lately formed college held its third convocation in Washington, November 16, 1914. The meeting opened with the announcement that the endowment fund already amounted to \$250,000, promised or paid in, and the prophecy was made that all would come in before the next meeting. Sir Rickman Goodlee, President of the R. C. S. of Great Britain, spoke encouragingly and presented a gavel devised and used by Lord Lister. A long list of new fellows was then read, a few honorary fellowships conferred, and then came an address by Dr. Edward H. Bradford of Boston on the "Opportunities for the College."

The first annual meeting was held on the same day, long reports were read by the Secretary and Treasurer, and much discussion followed on the actual purposes of the very large endowment fund concerning which so much criticism has developed of late. Assurance was given that none of the money was to be used for bricks and mortar, but solely for brains to guide and carry the scheme through to a permanent success. The largest sums would seem to be demanded by sufficiently large salaries to induce the most able men in the country to consent to look after the interests of the college to which they would devote their whole time. Mention was made of the enormous number of letters, telegrams and telephone messages needed to be sent all over the country in order to obtain information concerning the very large number of applicants, and this official work was advanced, as the ultimate cause for the delay in informing applicants of the successful issue of their requests for admission.

New and Non-Official Remedies.

During November the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Non-official Remedies.

Antiseptic Supply Co.: Cupric Applicators; Cupric Applicators, Special; Caustic Applicators, Special; Stypstick Applicators, Special (accepted for the appendix to N. N. R.)

Laboratory of W. T. McDougall: Pasteur Antirabic Vaccine.

H. K. Mulford Co.: Solution Pituitary Extract.

Radium Company of America: Radium Bromide, Radium Chloride, Radium Sulphate.

Standard Chemical Company: Radium Carbonate.

Clinical Evidence: In view of the unsatisfactory evidence for the therapeutic value of articles proposed for inclusion with New and Non-official Remedies, the Council adopted the following statement:

"Claims are often made, however, which are incompatible with common experience and sometimes defy the laws of nature. Claims which seem highly improbable will not be admitted by the Council unless the manufacturer supports them by evidence acceptable to the Council. In doubtful cases the Council acts on these questions under the advice, and with the co-operation, of its staff of clinical consultants."

Change of Formula. -- In view of information received from the Antiseptic Supply Company the Council has modified the description of Cupricsticks to indicate that these are tipped with a mixture of copper sulphate, alum and potassium nitrate, containing 20 to 25 per cent of copper sulphate.

Pituitary Liquid. — Armour and Company have informed the Council that its Pituitary Liquid is adjusted to uniform strength by the method of G. B. Roth (*Jour. of Pharm. and Exper. Thera.*, July, 1914). The description of Pituitary Liquid, Armour, has been revised to indicate this.

Abstracts from Current Literature.

(N. Y. Medical Journal, Dec., 1914.)

The Present Status of Vaccine Treatment in Acute Suppurative Infections.

By Chas. Norris, M. D.

The author reviews the whole subject from the use of tuberculin by Koch down to the present time. He lays special emphasis on the fact that the Opsonic Index is very essential in both determining the dosage to be employed at the appropriate time and the severity and course of the infection. It also has a diagnostic importance in a specific sense.

According to Wright a subnormal index in tuberculosis indicates a localized lesion; a subnormal index to staphylococcus indicates a localized staphylococcus. In tuberculosis, if the index is found to vary, subnormal, normal and high, it suggests a general tuberculosis. A constant normal index means freedom from infection, a changing index indicates auto-inoculation of the organism with toxins or bacteria which enter the general circulation. Artificial inoculation has been employed to differentiate between a tuberculous and a gonorrhœal arthritis, by

determining which of the opsonic indices is increased. Further, a comparison of the index of the blood serum and of peritoneal exudate, has been of use to determine the nature of the peritoneal lesion.

In regard to dosage he says that small doses are given in severe cases and medium doses in mild infection.

He divides the uses of vaccines into three classes: 1. Prophylaxis. 2. The rapid production of immunity after infection, but before the disease manifests itself by its peculiar symptoms. 3. Curative vaccination; "concerning the scientific basis of the first and second of these principles, no question arises; only the last is in doubt."

There is no general rule to vaccine therapy, each individual case should be studied by itself.

Immunology has taught us that many co-operating and interacting forces are concerned, as antitoxins, bacteriolysins, opsonins, agglutinins, and phagocytosis. Not all co-operate equally. In one disease, antitoxin formation appears to be the essential mechanism; in another, phagocytosis; in a third, bacteriolysin.

In no two diseases is the interaction the same and the reaction may vary according to the individual characteristics of the infected individual. These factors were emphasized by Wright, but are seldom considered by the present day clinical vaccinator.

E. B. FOLSOM.

(Medical Record, Dec. 5, 1914.)

Twilight Sleep in Practice.

By W. H. W. Knipe, M. D.

The author says that the poor results obtained by men in this country by the use of twilight sleep in obstetrics were due to "(1) A poor preparation of scopolamine; (2) to the use of too much morphine; (3) to the attempt to achieve absolute painlessness in childbirth; (4) to a technique which was entirely different from that used and recommended by Gauss."

"At Freiburg and elsewhere in Germany, there have been reported 8,000 cases of twilight sleep with very excellent results, both for the mother and for the child, and it would seem that, with similar technique and care, equally good results may be obtained by those who follow the Gauss method."

"The conditions necessary for success are:

- (1) A thorough knowledge of obstetrics.
- (2) The presence of the physician from the time of first injection till the birth of the child.
- (3) Stable preparations of the drugs.
- (4) A quiet place and absence of bright light."

The technique is described carefully by the author. The amount of drugs used depending on the memory test, the proper zone is one where perception is present but in which there is no memory of events occurring at the time.

"That there are certain dangers to an improperly conducted twilight sleep is admitted by all; that there are wonderful advantages in a properly conducted twilight sleep must be admitted by those who will take the trouble to investigate this matter."

E. B. FOLSOM.

(Medical Record, Jan. 2, 1915)

Etiology of Pellagra.

By B. W. Page, M. D.

The author thinks he has found a bacillus located in the large intestines which is the cause of pellagra.

He describes the bacillus, and claims to have found it present in each of fifty-three cases while it has not been found in healthy individuals and those suffering from other diseases.

Ichthynol, one or two five grain pills three times a day, for eight or ten days apparently cures the average case. In two cases eighty grains relieved all digestive and nervous symptoms. The more advanced cases require longer treatment. The author seems to think it is a specific, the bacilli disappearing with the symptoms.

E. B. FOLSOM.

Book Reviews.

Local Anaesthesia.

By Carroll W. Allen, M. D. W. B. Saunders Co., Publishers.
Philadelphia and London.

This is a very well written and comprehensive work, dealing with the many phases of local and regional anæsthesia. It deals with the action and uses of all the various cocain derivatives and substitutes. Morphine and scopolomine anæsthesia, anoci-association intra-arterial and intravenous anæsthesia, spinal analgesia, epidural injections, paravertebral and prasacral anæsthesia are all minutely described and exemplified. Such major operative procedures as hysterectomy, prostatectomy, and resection of the superior maxilla for malignant disease are all possible under local anæsthesia. The portion dealing with nerve injections with resulting regional anæsthesias is particularly helpful. Dental anæsthesia is also included.

C. M. R.

County News.

CUMBERLAND.

The thirty-fourth regular stated meeting of the Cumberland County Medical Society was held at the Congress Square Hotel, Friday evening, December the eleventh. This was the annual meeting and ninety members were present.

The following officers were elected to serve for the year 1915: President, Herbert F. Twitchell, M. D., Portland; Vice President, J. K. P. Rogers, M. D., South Portland; Secretary, Adam P. Leighton, Jr., M. D., Portland; Treasurer, Stanwood E. Fisher, M. D., Portland.

Dr. Harold A. Pingree of Portland was elected to the Board of Censors, taking the place of Dr. E. W. Gehring, whose term of office has expired.

The following Delegates to the annual meeting of the Maine Medical Association were also chosen: Dr. Charles B. Sylvester, Harrison; Dr. Frank N. Whittier, Brunswick; Dr. Isaac D. Harper, North Windham; Dr. Nathaniel M. Marshall, Portland; Dr. Louis L. Hills, Westbrook; Dr. Frank Y. Gilbert, Portland.

Dr. Philip W. Davis read a communication relative to the proposed reformatory for women.

The following resolutions were passed in memory of Dr. Arthur Scott Gilson, who died recently:

In the death of Dr. A. S. Gilson, which occurred in this city, Oct. 10, 1914, we are again reminded that the good and useful among us may at any moment be called upon to relinquish the noble work of our profession: Therefore be it resolved by the Cumberland County Medical Association that, in the death of Dr. A. S. Gilson, we have been deprived of the services of a good and just man, an able physician, a skillful surgeon: whose kindly and gentle nature endeared him to his patients and friends, whose high ethical standards and wise counsel made him especially valuable in our medical fraternity.

Resolved that our sympathy be extended to his bereaved family, and that a copy of these resolutions be sent to them and also placed upon our records.

STANLEY P. WARREN,
HERBERT F. TWITCHELL.

Dr. Carl M. Robinson of Portland was elected a member of the Society and the names of Dr. Richard P. Black of Portland and Dr. Leon S. Lippincott of Brunswick were referred to the Board of Censors as having applied for membership.

At the close of the business meeting an excellent dinner was served. Following this, Dr. Franklin S. Newell of Boston, Professor of Obstetrics in the Harvard Medical School, read a most interesting paper on "The Treatment of Eclampsia." A valuable discussion was taken part in by several of the members present.

DR. ADAM P. LEIGHTON, JR.,
Secretary.

PORTLAND MEDICAL CLUB.

The first meeting of the year 1915 was held at the Columbia Hotel, Thursday, January 7th, with the president, Dr. Alfred Mitchell, Jr., in the chair. There were twenty-seven members present and one invited guest.

A petition was presented to the members regarding a reformatory and industrial home for delinquent women. This was approved and the president and secretary instructed to sign the petition. Drs. Carmichael, Hatch and Gehring were appointed as a committee to confer with Women's Literary Union in regard to a Public Health Lecture.

Application for membership, Dr. W. E. Elwell, 98 West Street, recommended by Drs. Thayer and Marshall.

The paper of the evening was read by Dr. N. M. Marshall, the subject being, "Life Insurance Examinations." An excellent paper freely discussed by Drs. J. F. Thompson, Thayer, C. W. Foster, Pierson, Swasey, Robinson, Webber, Bassford and Northcott. Dr. Northcott gave some interesting statistics regarding the use of alcohol by policy holders from 1885 to 1907. In the moderate regular drinker the death rate is approximately 30% above normal. In the regular drinker who drinks more freely, 50%. In the drinker to excess and the reformed 80%. Total abstainers' death rate far below that of any of the risks.

The meeting adjourned at 9.50 P. M.

BENJAMIN FOSTER, *Secretary.*

HANCOCK.

The annual meeting of the Hancock County Medical Society was held at the residence of Dr. J. H. Patten, Bar Harbor, on Wednesday evening, Dec. 16th. The following officers were elected to serve during the ensuing year:

President, Dr. J. H. Patten, Bar Harbor; vice-president, Dr. C. C. Morrison, Bar Harbor; secretary and treasurer, Dr. G. A. Neal, Southwest Harbor; State delegate, Dr. J. D. Phillips, Southwest Harbor; censor, Dr. Geo. Phillips, Bar Harbor.

Dr. R. W. Wakefield gave an interesting talk on cystoscopy.

Dr. R. G. Higgins reported the course and treatment of a case of erythema nodosa.

Dr. J. H. Patten read an entertaining paper on the Functions of the Thyroid Gland and conditions where the administration of the extract of thyroid was indicated.

Those present were Drs. R. G. Higgins, Geo. Hagerthy, C. C. Morrison, P. H. Patten, J. D. Phillips, Geo. Phillips, R. W. Wakefield, H. B. Webster, G. A. Neal and Mr. E. L. Palmer, superintendent of schools.

After adjournment a very nice lunch was tendered by the host during the social hour.

This county society has held one public meeting and four regular meetings during the past year and has 27 members in good standing.

G. A. NEAL, *County Secretary*.

KENNEBEC.

The Kennebec County Medical Association held its annual meeting and dinner Friday evening at Hotel North with good attendance. The election of officers at the business meeting resulted as follows: President, Dr. Ralph D. Simons of Gardiner; vice president, Dr. H. K. Stinson of the National Soldiers' Home at Togus; secretary, Dr. S. J. Beach of Augusta; treasurer, Dr. G. R. Campbell of Augusta; board of censors, Dr. B. D. Ridlon of the National Soldiers' Home at Togus; Dr. A. B. Libby of Gardiner, Dr. L. G. Bunker of Waterville; Delegates to the Maine Medical Association, Dr. T. E. Hardy of Waterville, Dr. D. B. Cragin of Waterville and Dr. S. J. Beach of Augusta.

Dinner was served at 7 o'clock, the menu including lobster stew, boiled chicken and all the extras, served in an excellent manner, and was thoroughly enjoyed. The doctors insisted that it was not a banquet, but a "crackerjack feed." Following the dinner, speaking was in order, this part of the program being opened by Dr. Wellington Johnson of Augusta, who delivered the president's address. Dr. F. C. Thayer of Waterville read a paper on "Hippocrates." Dr. D. A. Robinson of Bangor, who was present as the guest of the association, made interesting remarks.

The following doctors were present: L. A. Coombs, H. W. Hall, F. C. Tyson, H. J. Frederick, W. Johnson, S. J. Beach, C. J. Lincoln, G. R. Campbell, S. H. Kagan of Augusta; A. Sawyer, F. E. Strout, R. D. Simons, A. B. Libby of Gardiner; T. E. Hardy, E. E. Goodrich, J. G. Towne, F. C. Thayer, J. E. Poulin, L. G. Bunker, H. L. Parizo of Waterville; C. H. Beane, H. A. Milliken of Hallowell; D. A. Robinson of Bangor; H. K. Stinson, W. Hendee of the National Soldiers'

Home at Togus; C. H. Witherill, V. C. Totman of Oakland; C. H. Leach of South China.

W. JOHNSON, *County Secretary*.

KNOX.

The regular bi-monthly meeting of the Knox County Medical Society was held in the parlors of the Thorndike Hotel, Tuesday, Dec. 8, at 11.30 A. M.

The following officers were elected for the ensuing year: — President, Dr. L. W. Hadley of Union; Vice President, Dr. H. W. Frohock of So. Thomaston; Secretary, Treasurer and County Editor, Dr. F. H. Webster, Rockland; Member of Board of Censors for three years, Dr. H. E. Gribben of Rockland.

F. H. WEBSTER,

County Editor.

OXFORD.

The nineteenth annual meeting of Oxford County Medical Society was held at Needham's Hotel, Mechanic Falls, on Monday, Dec. 28.

The literary program consisted of an interesting paper entitled "Prolapse of the Uterus," by Dr. E. M. McCarthy of Rumford, which was freely discussed by nearly all present, also the annual address of the president, Dr. R. R. Tibbetts of Bethel. The president's address is a custom just adopted by this society and Dr. Tibbetts read such an able and fitting paper as to convince those present of the wisdom of such an arrangement.

Dr. L. B. Marshall of Hebron was elected to membership in the society and Dr. Louis W. Parady of Rumford Point was accepted by transfer from the York County Society.

The following officers were nominated and elected by ballot for the ensuing year: R. R. Tibbetts of Bethel, president, re-elected; F. E. Leslie, Andover, vice-president, re-elected; D. M. Stewart of So. Paris, secretary and treasurer, re-elected; F. E. Wheeler of West Paris, censor; A. L. Stanwood of Rumford, delegate to the Maine Medical Association.

Drs. Farris, Bartlett and McCarthy were appointed a committee to draw up resolutions on the death of Dr. F. N. Barker of Norway.

It was voted to be the sentiment of the meeting that the officials of the State Journal should use their own judgment in regard to combining with the Massachusetts Journal but that an increase in the State dues is not thought advisable if it can be avoided.

Several interesting clinical cases were reported and more than the usual enthusiasm was shown.

Those present were Drs. Tibbetts, Hutchins, Stanwood, Pease, Trufant, McCarthy, Wheeler, Wheet, Haskell, Farris, Rankin, Bartlett, Byron and Stewart.

D. M. STEWART,
County Editor.

Personal News and Notes.

We are glad to note the consolidation of the "Dietetic and Hygienic Gazette" with "The Critic and Guide," under the editorship of Dr. William J. Robinson, at 12 Mt. Morris Park W., New York City, and wish them the best of success.

Dr. B. F. Bradbury of Norway, surgeon-general of the State militia, is on a six months' leave of absence to serve with the American Medical Red Cross in the European war. He is at present stationed in Kosel, Germany, where he is head surgeon in a hospital of 700 beds.

Dr. R. H. Stubbs and family of Augusta, Me., have gone to St. Petersburg, Florida, for the winter.

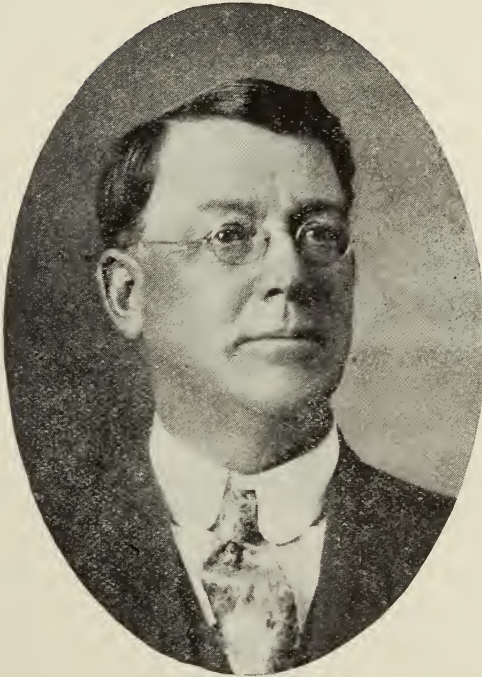
Dr. L. E. Willard, Saco, is mentioned for Democratic mayoralty nomination in that city. He was the candidate who received the nomination last winter.

Dr. C. M. Sleeper, So. Berwick, is a promised candidate for Gov. Curtis' Council, to represent First Councillor District, York and Oxford Counties.

Jacob Lyman Horr, M. D., graduate of the Maine Medical School, 1869, member of the Maine Medical Association, died at his home in Westbrook, Dec. 22, 1914, aged 73 years.

Frank Newton Barker, M. D., graduate of University of Ver-Maine Medical Association, died Dec. 17, 1914, in Norway, aged 60 years.

Necrology.



FRANK HENRY HOBBS.

Dr. Hobbs, one of the leading practitioners in medicine in York County, died very suddenly at his home in Waterboro, on Sunday, October 11th, 1914, following an apparently successful operation for appendicitis. He had been ill for a short time only, was taken suddenly worse, and operated upon at once, but the conditions discovered were such that no recovery could be hoped for.

This interesting man was born in Waterboro, October 13, 1858, the son of Julian Henry and Lydia Patten Hobbs, studied in the village school and laid out his plans to become a well educated practitioner of medicine, preceding it with a college course. Unfortunately for his ambitious plans, his father and mother both fell into invalidism, so that, rather than leave them in the care of others, he devoted several years to the devoted charge of them and of the farm, first settled by his great grandparents. He spent the winters in teaching, and so continued steadily in his self-appointed task until, in 1897, he was able at last to begin his studies in medicine, methodically and scien-

tifically at the Medical School of Maine, from which he was graduated with honor in 1900. He then settled in Waterboro, four miles from his birthplace, and practiced capably and successfully until his unexpected and greatly lamented death. He had a wide and well established practice, medically, and, although not performing the capital operations in surgery, was very clever in minor surgery; that skilful way of saving a finger, a hand, or a foot, and, by careful first aid, often saving a life by prevention of infection.

On the 15th of April, 1887, he married Miss Elizabeth Ricker Hamilton of Waterboro, who, with a son, Elmer Hamilton Hobbs, (Bowdoin, 1910) survive him.

The medical profession always stands in need of men of character and determination as was Dr. Hobbs, for, by their honesty of life and firmness of character, they lift it to a high standard of perfection and of preventive value for the communities in which they practice.

J. A. S.

FREDERICK LEANDER DAVIS.

This excellent physician, the son of Leander and Mary Ellan Davis of Portland was born in that city, April 4, 1859, and died in Biddeford very suddenly, October 10, 1914. He had been suffering for some time previously, from spasmodic attacks of oedema of the lungs, supervening upon arterio sclerosis and nephritis, but had passed safely through them all. This time, however, he failed to rally, and after a serious relapse on the day before, he passed away.

As a boy he obtained his education partly at Bridgton and partly in Portland, and then learned a trade to obtain money for a self-education in medicine, which he obtained at the Medical School of Maine, from which institution he obtained his degree in 1888. He then settled in Biddeford, where he practiced the rest of his life. He acted as city physician from 1896 to 1901, was a charter member of the Webber Hospital in Biddeford and a surgeon on the staff, and an active member of the York County Medical Society as well as of this Association. He practiced general medicine during the early part of his career but toward the end he became identified with the practice of ophthalmology and its allied branches. His papers before the York County Society were well received, and his presence will be missed from their circle as well as from ours.

Dr. Davis was very active as a citizen of Biddeford, much beloved and esteemed and unflinching in his efforts to obtain public improvements of every sort.

No notice of the career of Dr. Davis would be complete without emphasizing his high position in musical Maine. From childhood, he possessed a beautiful voice which gradually developed into a superb bass, the delight and gratification of all who heard it. He was as a boy, a member of the cathedral choir of Portland, and after his settlement in Biddeford the leader of all the music connected with St. Mary's Parochial Church, and the various local societies of music connected with the Maine Musical Festival Chorus.

J. A. S.

Notices.

United States Civil Service Examination, Feb. 3, 1915. Physician (Male)

The United States Civil Service Commission announces an open competitive examination for physician, for men only, on February 3, 1915, at the places mentioned in the list printed hereon. From the register of eligibles resulting from this examination certification will be made to fill a vacancy in this position in the Indian Service at the Hayward School, Wisconsin, at \$1,100 a year, and vacancies as they may occur in positions requiring similar qualifications, unless it is found to be in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

Qualified men have an excellent opportunity for appointment to the Indian Service as a result of this examination. The usual entrance salaries range from \$900 to \$1,100 a year.

Applicants must be graduates of or senior students in recognized medical schools.

Applicants must have reached their twenty-first but not their fortieth birthday on the date of the examination.

Important Announcement.

On January 1, 1915, the contract between the owners of the "Boston Medical and Surgical Journal" and the publisher, Mr. W. M. Leonard, terminated and a new method of management began. On the same date, Dr. E. W. Taylor retired from the office of Editor-in-Chief.

The Journal has been incorporated under the laws of Massachu-

setts as a charitable institution and the business management is to be in the hands of Mr. Ernest Gregory, who will give his entire time to the Journal, acting for the incorporators, and having the benefit of Mr. Leonard's advice as consulting manager.

The editorial department, which has been reorganized with the approval of the Advisory Committee, will consist of the following physicians: Dr. Robert M. Green, Editor-in-Chief, Dr. Walter L. Burrage and Dr. Frederick T. Lord, acting for The Massachusetts Medical Society. Dr. Walter B. Cannon, Dr. Harvey Cushing, Dr. David L. Edsall, Dr. Reid Hunt, Dr. Roger I. Lee, Dr. Allan J. McLaughlin, Dr. Robert B. Osgood, Dr. M. J. Rosenau, Dr. E. C. Streeter and Dr. E. W. Taylor constitute the Consulting Editorial Board. The Advisory Committee remains the same, Dr. W. P. Bowers of Clinton, Dr. Homer Gage of Worcester, Dr. Lyman A. Jones of North Adams, Dr. Alfred Worcester of Waltham, Dr. Joel E. Goldthwait, Dr. E. C. Streeter, Dr. Hugh Williams, Dr. Robert B. Osgood, Secretary.

The office of the Journal has been moved to the Farragut Building, 126 Massachusetts Avenue, corner of Boylston Street.

The number of advertising pages has been reduced for the present, resulting in an elimination of nearly one-half the total former advertising matter. It is the intention to establish a standard in this department of the Journal's work, which will be beyond criticism.

It is hoped, by this reorganization, which places the business affairs of the Journal entirely in the hands of the medical profession, that a maximum degree of efficiency may be secured, and that associations which adopt the Journal as their mouthpiece may be more adequately served than heretofore. The editors and incorporators will always be grateful for criticisms and suggestions looking toward a greater usefulness of the Journal to the medical organizations of the country.

HUGH WILLIAMS, M. D., *President*,
EDWARD C. STREETER, M. D., *Secretary*,
JOEL E. GOLDTHWAIT, M. D., *Treasurer*,
ROBERT B. OSGOOD, M. D.,
E. W. TAYLOR, M. D.,
ROBERT M. GREEN, M. D.,
ERNEST GREGORY,

*Incorporators of the Boston Medical and Surgical
Journal Society (Inc.)*

Advertisers' Notes.

The Simple Life in a Nutshell.

It is very generally conceded that many of the maladies from which men and women suffer are due primarily to the complexities of modern business and social life.

Nervous disorders are very frequently directly attributable to the tenseness of living and working conditions.

That the return to the simple life is a very effective method of combatting evils of a strenuous mode of living is the theory of the Battle Creek Sanitarium.

Here every patient is encouraged to make a "mild return to savagery." Simple habits are insisted upon—simple clothing, simple exercise, simple food—all of these are depended upon to win a patient back to normal health.

Dr. J. H. Kellogg, superintendent of the sanitarium, has written a very interesting booklet entitled "The Simple Life in a Nutshell" which contains many helpful rules of living. This little booklet will be sent free on request.

Glenellis.

Glenellis was built with the idea of accommodating a limited number of non-surgical patients. The location, in the wooded highlands of the Rangeley Lake regions, is especially suited to those cases needing a dry ozone-laden air and an out-of-door life. Cases of nerve exhaustion and all neuroses are treated by proper psycho-therapy, tonics, electricity and massage as indicated.

The "occupation cure" is used when practical and in many cases has given excellent results. Properly regulated diet, rest and quiet with a simple home life where there are no suggestions of hospital or hotel and where the limited number enables the physician to give his personal attention to each, has shown by several years' experience to markedly benefit every case of functional nerve disorder that has been treated.

Hay fever is unknown to the natives of this section and those who suffer from this very unpleasant neurosis can be assured of absolute freedom from the disease while in Andover.

Cases of alcoholism and drug addiction, which are really neuroses, after the acute symptoms have been corrected, are taken. With the number strictly limited it is possible to guard the welfare of each so that other classes of patients are not objectionable.

No contagious or insane cases are received.

DR. FRANK E. LESLIE.

Andover, Oxford County, Maine.

Hypodermic Medication.

Perhaps no procedure in medical practice is more common or more essential than that of hypodermic injection. How important, then, that the tablet employed for the purpose be in all respects as nearly perfect as possible—for, be it remembered, hypodermic tablets are emergency agents. When the phy-

sician resorts to this form of medication he wants results, and he wants them promptly. It behooves him, therefore, to choose his hypodermic tablets wisely, with due regard to the maker's reputation for producing tablets that are correct as to purity, activity, solubility, identity and uniformity.

Probably no manufacturers are more scrupulously particular with respect to all these essentials than are Parke, Davis & Co., whose long identification with the production of hypodermic tablets and whose equipment for this branch of manufacturing pharmacy are positive assurances of trustworthy products. Parke, Davis & Co. lay particular emphasis upon the free solubility of their hypodermic tablets. And this is a quality that should not be lightly considered. There is a wide difference between solution and disintegration. Some tablets fly to pieces quickly enough when shaken in water, but the particles do not dissolve quickly. Such tablets cannot be depended upon to produce the desired therapeutic results. The materials entering into Parke, Davis & Co.'s hypodermic tablets are exhaustively tested for purity. They are checked, cross-checked, tested and retested for identity. Seemingly every care is exercised that the ultimate product shall be as nearly perfect as human skill can make it.

Salvarsan. Causes of Death After Its Exhibition.

The Germans with characteristic energy and exactitude have no sooner discovered a new remedy, than they have set themselves to work to account for the occasional fatalities following its use. In the opinion of one of them, Dr. Carl Schindler (*) the precise cause of death is acute paralysis of the circulation by arsenic. The author offers suggestions for prevention, and prefers intramuscular to intravenous injections. The book may not absolutely solve the Salvarsan Death Puzzle, but it is a valuable contribution to an important medical and public health question of today.

*Der Salvarsan Tod. Seine Ursache, etc. Dr. C. Schindler. Berlin. Krager. Price 5 Mark.

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FEB., 1915.

No. 7

*SURGICAL DIARRHEAS.

BY SAMUEL GOODWIN GANT, M. D., LL. D.,

Professor of Diseases of the Colon, Rectum and Anus at the
New York Post-graduate Medical School and
Hospital, New York City.

Acute diarrhea caused by gastrogenic and enterogenic dyspepsias, psychic emotions, neurogenic disturbances, ptomaine poisoning, constitutional infections, catarrhal entero-colitis, climatic influences, vocational diseases, foreign bodies, fecal impaction, dietary indiscretions, careless living and exposure can often be relieved or cured by freeing the bowel of irritating ingesta, toxins and feces, restricting the diet, having the patient rest in bed and prescribing medicines which control peristalsis, minimize the hypersecretion of mucus, diminish fermentation and putrefaction, alleviate suffering, facilitate digestion and quiet the nerves.

When these therapeutic remedies fail after being reinforced by physical measures, the mucosa usually becomes congested or ulcerated, changes which favor continuation of the diarrhea.

Under these circumstances and when the colon or small intestine is blocked by a foreign body, kink, pericolic membrane, adhesions, stricture, cancer, invagination, ptosis or other form of mechanic obstruction, or is highly inflamed or ulcerated through the ravages of catarrhal, luetic, tubercular, entamebic, bacillary, balantidic, helminthic or gonorrheal colitis complicated by mixed infection, *surgical intervention* is indicated in the majority of cases because through

*Read before the Maine Medical Association at Portland, Maine, June 10 and 11, 1914.

the aid of an operation a quicker and more certain cure can be obtained than is to be expected from the older plan of treatment above indicated. Prolonged medication is not advisable in this class of cases because chemicals disturb digestion, interfere with metabolism, lead to the formation of enteroliths, irritate the gastro-intestinal mucosa, encourage insomnia, impair the circulation, bring only temporary relief and patients often become drug *habitués*.

Except where diarrhea is caused by colonic obstruction or the patient has undergone prolonged treatment, the writer always tries the usual therapeutic measures reinforced by colonclisis before operating. Medicated irrigation is the remedy *par excellence* in these cases but it sometimes fails because the fluid cannot be made to reach all parts of the diseased colon, owing to its position or distortion and doubling up of the irrigating tube.

The writer's success has been so marked with surgical measures in the treatment of chronic diarrhea that he does not hesitate any more in recommending an operation for this condition than for appendicitis.

Surgical Treatment: The procedures most often employed in the surgical treatment of chronic diarrhea are viz., *colostomy*, *ordinary cecostomy*, *Gant's cecostomy*, *appendicostomy*, *appendico-cecostomy*, *intestinal exclusion*, *resection* and *amputation*.

Colostomy. An artificial anus is rarely indicated because of the disgust which accompanies movements through the side, irritation of the skin by the feces and discharge, occasional prolapse of the gut, a prolonged serious operation is required to close the anus, and through and through irrigation can be practiced following appendicostomy or cecostomy less objectionable procedures. Consequently the writer never resorts to colostomy except in cases of inoperable intestinal obstruction.

Cecostomy and appendicostomy. Since the advent of these procedures, rapid strides have been made in the palliative and curative treatment of catarrhal and specific colitis, intestinal stasis, autointoxication, malignancy, chronic colonic obstruction, intestinal parasites, ordinary and pernicious anemia and many other manifestations and diseases which cause or complicate chronic diarrhea.

Experience has demonstrated to the writer's satisfaction that cecostomy is preferable to appendicostomy in the direct treatment of lesions responsible for chronic diarrhea and a comparative study of the advantages of cecostomy and the disadvantages of appendicostomy, as enumerated below, will show why the former should take preference over the latter.

Advantages of Cecostomy. The advantages of this operation,

especially the writer's cecostomy, which provides a means of irrigating both the large and small intestine, are as follows:

1. Owing to the fact that the cecum lies against the inner abdominal parietes, it can be easily anchored without angulating or twisting the bowel.

2. Since the opening is opposite the ileocecal valve, a catheter can be introduced into the small bowel for irrigating purposes or the siphoning of its contents for examination.

3. The cecal opening can be made of a suitable size.

4. The circular valve-like projection formed around the catheter by the infolding purse-string suture prevents leakage.

5. The catheter can be changed without difficulty.

6. Closure of the opening follows withdrawal of the catheter and a few applications of the copper stick or cautery.

7. Owing to the position of the cecum, there is less tension and pain following its anchorage to the abdomen than occurs after appendicostomy.

8. Cecostomy (Gant's) may be employed in the treatment of lesions anywhere in the intestinal canal, while appendicostomy is limited to colonic affections.

Disadvantages of Appendicostomy. 1. The appendix is more difficult to anchor than the cecum owing to its deeper and more uncertain position and because it is frequently bound down by adhesions or a short mesentery.

2. Anchoring of the appendix often causes angulation or twisting of it or the cecum which, in turn, induces constipation, discomfort or pain.

3. When the cecum about the appendiceal base is caught in the wound, it induces nausea and vomiting (author's case).

4. When the appendix is small, short, strictured, bound down by adhesions, blocked, or otherwise diseased, it is useless for irrigating purposes.

5. Irrigation is frequently difficult and unsatisfactory because of the small appendiceal outlet.

6. Pain following appendicostomy is greater than after cecostomy, owing to pulling upon the appendix by the loaded cecum, peri-appendiceal adhesions, or squeezing of the attached mesentery when the wound is tightly closed about it.

7. Frequent dilatation or the insertion of a catheter is necessary to keep the opening patent.

8. Death has followed injection of the irrigating fluid into the abdomen beside the appendix, when an interne mistook an opening in the wound for that of the appendix (author's case).

9. After a cure it is more difficult to close the appendiceal than the cecal outlet, and appendectomy may be necessary.

10. Appendicostomy frequently fails because the appendix slips back into the abdomen or retracts.

11. The appendix has sloughed several times owing to tension, its constriction by sutures or destruction of its blood supply making cecostomy imperative.

12. Appendicostomy is not effective when the disease is located in the small intestine.

13. Appendicitis requiring appendectomy following closure of the appendiceal outlet has occurred (author's case).

14. Owing to irritation caused by the catheter or treatment the mucosa may become so inflamed, swollen, ulcerated or strictured, that irrigation must be abandoned.

15. The catheter frequently causes the wall of the appendix to perish.

16. Finally the appendix may become blocked by an angulation (author's stab-wound appendicostomy.)

TECHNIC OF CECOSTOMY AND APPENDICOSTOMY.

Ordinary Cecostomy consists in implanting a catheter into the cecum which is anchored to the anterior abdominal parieties. But the procedure after Gibson's technic and as ordinarily performed is objectionable because subsequently gas and fluid feces almost constantly escape.

Gant's Cecostomy with an Arrangement for Irrigating both the Small Intestine and Colon. The writer will now describe an original way of flushing the small and large bowel through the *same opening* in the cecum — an operation which, for want of a better name, he has designated "Cecostomy with an Arrangement for Irrigating both the Small Intestine and Colon."

He believes this procedure is superior to ordinary cecostomy because the technic is simple, the operation requires no more time, there is less leakage owing to the purse-string infolding being substituted lateral sutures, both the small and large bowel can be irrigated, a firmer union is obtained by attaching the cecum to the transversalis fascia than to the parietal peritoneum, and the opening heals spontaneously after the catheters are removed.

The following briefly-described steps of the author's cecostomy can be readily grasped by a glance at the accompanying illustrations.

First Step. Through a two-inch intermuscular incision made directly over it the cecum and lowermost part of the ileum are withdrawn and the edges of the wound covered with gauze handkerchiefs.

Second Step. The anterior surface of the cecum is scarified af-

ter the ascending colon and ileum have been clamped to prevent soiling of the wound.

Third Step. Four linen seromuscular purse-string sutures are introduced into the anterior wall of the cecum opposite the ileocecal valve and the bowel is opened inside the suture line.

Fourth Step. The gut is grasped at the juncture of the large and small intestine and held in such a way that the ileocecal valve rests between the thumb and fingers of the left hand. A Gant catheter guide is then passed across the cecum and through the ileocecal valve into the small intestine aided by the thumb and fingers.

Fifth Step. The obturator is removed from the guide and a catheter is introduced into the small bowel, and held there by an assistant until anchored to the cecum by catgut sutures to prevent its slipping out.

Sixth Step. A short rubber tube three inches long is projected into the cecum for an inch or more and anchored beside the one in the small gut.

Seventh Step. The infolding purse-string sutures are tied forming a cone-shaped valve about the catheters to prevent the leakage of gas and feces.

Eighth Step. After removal of the clamps, the scarified cecum is anchored to the transversalis fascia, denuded of its peritoneum by through and through linen suspension stitches.

Ninth Step. The suspension sutures are tied across rubber tubings, the wound is closed by the layer method, and the catheters are fastened by stitching or encircling them with an adhesive strip to hold them together and crossing this at a right angle with a second piece of plaster placed between the pipes to prevent their slipping out.

Tenth Step. The ends of the catheters are closed with cravat clamps to prevent leakage and the operation is completed by applying dressings about the projecting tubes.

One catheter is left longer than the other so that the interne or nurse may know *which is in the large and which in the small intestine* when time for irrigation arrives. To avoid infection, irrigation is not begun before the fifth day except in urgent cases.

The catheters may be changed by cutting the attached adhesive strips and withdrawing the one projecting into the cecum. The catheter guide is then passed over the other into the small intestine where it is retained until the old tube has been removed and a new one introduced. A second piece of catheter is then placed in the cecum and both are prevented from slipping out by adjusting fresh adhesive straps.

Before deciding upon the above technic, the writer irrigated the small intestine by passing a glass or silver catheter through the cecal

opening into the small gut for each irrigation, but this practice was abandoned as impractical because of the difficulty encountered in passing the valve, and, the patient could not irrigate himself.

The writer has had no reason to suspect that peristalsis has forced the tube out of the small intestine and feels confident that the catheter remained in the small gut in his cases because water injected through the colonic pipe was evacuated quicker than when it was deposited in the small bowel; when a 10 per cent solution of methylene-blue was injected into the colon, it appeared in the urine more quickly than when introduced into the small gut; the catheter guide could be carried over the tube in the small intestine and the latter removed and replaced at will and fluid feces could be withdrawn more regularly through the small intestinal than the colonic catheter.

To avoid possible expulsion of the catheter from the ileum the writer has successfully employed catheters made of silk, silver or glass, and soft rubber reinforced by an inner metal tubing or spring.

Gant's Entero-Colonic Irrigator. This instrument, which is made of rubber and metal and worked exceedingly well in many cases, is self-explanatory when compared with the accompanying illustrations.

When the irrigator is in position, the inflating bag lies in the small intestine at or near the ileocecal valve and when distended fills the bowel and prevents escape of the solution into the cecum, thereby enabling the attendant accurately to gauge the amount of fluid deposited in the small bowel and to retain it there as long as required. By means of this twin-tube irrigator, the small and large intestines can be quickly and scientifically flushed, singly or together, by physician, nurse or patient.

The steps in the writer's cecostomy, when the irrigator is employed, are similar to those already described when catheters are used, except that the catheter guide is unnecessary and the apparatus is retained in position by pieces of tape which encircle the body, or adhesive strips.

The writer's cecostomy has been successfully employed in the treatment of intestinal parasites, enterocolitis, peritonitis, paralytic ileus, intussusception, entamebic, bacillary, balantidic, tubercular, syphilitic, dysenteric and gonorrheal colitis, ordinary and pernicious anemia, colonic stasis, various types of chronic intestinal obstructions, auto-intoxication, ptomain poisoning, chronic diarrhea, intestinal feeding, malnutrition and following operations upon the mouth, throat, esophagus or stomach, in gastric stricture, ulcer, cancer and other disturbances where rest of the organ is indicated.

By means of Gant's cecostomy, various intestinal diseases can be investigated and the procedure can be used to determine the amount

and nature of the intestinal juices and discharges, character of the feces, action of salines and other cathartics injected directly into the small and large intestines, marked vasomotor activity following hot and cold enteroclysis, effect of bacteria introduced for therapeutic purposes, employment of a bismuth solution for X-ray diagnosis; and in the study of many interesting problems.

The writer has not employed his cecostomy in the treatment of cholera, typhoid fever and some other acute infections of the intestinal tract but believes that it is frequently indicated and would shorten the period of convalescence in such cases by minimizing the effects of toxins and healing lesions in the mucosa. He has resorted to the procedure several times to provide for drainage following intestinal exclusion for obstipation caused or complicated by intestinal obstruct, autointoxication, ulcerative colitis, pericolitis, stricture or malignancy.

Gant's Appendicostomy. Some surgeons do not open the appendix during the operation because they fear infection. The writer believes this is bad practice except when it is obvious that the appendix is unobstructed because he has encountered several failures following it, where the appendix was too short or small, strictured, blocked by foreign bodies, angulated by adhesions or abnormal in other respects. Consequently he amputates the appendix and immediately introduces his probe-pointed appendiceal irrigator; then nothing can interfere with post-operative irrigation, but when the appendix is diseased, it is removed and cecostomy is performed. It is important that irrigation be started at once in patients suffering from ulcerative colitis who are despondent, greatly debilitated, have diarrhea, lose considerable blood and suffer from insomnia and auto-intoxication.

To meet these conditions the writer has devised a technic for appendicostomy which provides for irrigation during the following operation (Fig. 5), since the adoption of which his patients have gained very much more rapidly than when the appendix was not opened for several days. Now and then a stitch abscess has occurred but other complications have not arisen, and pressure of the irrigator has not caused the appendix to atrophy or slough.

Briefly described the following are the steps in Gant's appendicostomy, viz.:

First Step. The appendix and cecum are approached through a gridiron incision, freed, brought outside, and the wound protected with gauze handkerchiefs.

Second Step. The cecum is drawn from side to side by an assistant while the parietal peritoneum is removed at the sides of the incision to insure union between the gut and the transversalis fascia.

Third Step. The appendix is freed and straightened by ligating and dividing adhesions without injuring its blood supply.

Fourth Step. After the cecum has been scarified, two seromuscular suspension sutures are introduced near the base of the appendix.

Fifth Step. By means of a long-handled needle, the anchoring stitches are carried through the abdominal wall and clamped with forceps.

Sixth Step. Having surrounded the appendix with gauze, a traction suture is introduced to steady it while the end is being amputated and cauterized.

Seventh Step. A Gant probe-pointed appendiceal irrigator closed with a stopper is introduced and the appendix is ligated around it above the projecting rim.

Eighth Step. The appendix is placed in the lower angle of the wound pointing upwards and anchored by two catgut sutures.

Ninth Step. The abdominal layers are approximated and the cecal suspensory sutures tied across rubber tubes.

Tenth Step. The irrigator is prevented from slipping by adhesive straps or pieces of tape which encircle the body.

Eleventh Step. In urgent cases the colon is immediately irrigated with a medicated solution or oil.

Twelfth Step. The wound is sealed with cotton and collodion and protected by rubber-covered split gauze pads which overlap each other.

Thirteenth Step. The end of the irrigator is surrounded by twisted gauze strips to prevent pressure upon it when the outer dressings are applied.

Appendico-Cecostomy. When appendicostomy is attempted and the appendix is found unsuitable, it is amputated half an inch from the cecum, a catheter is inserted and the bowel is anchored to the abdominal wall and irrigated through the appendiceal stump, a procedure designated by the writer as *appendico-cecostomy*.

The writer has successfully employed *appendicostomy* and *cecostomy* in about 200 cases of chronic diarrhea, including those of the accompanying table, compiled three years ago.

TABLE SHOWING OPERATIONS AND AFFECTIONS FOR WHICH DIRECT
BOWEL TREATMENT WAS EMPLOYED BY THE AUTHOR
IN ONE HUNDRED AND FIVE ADULTS.

OPERATIONS PER- FORMED FOR	Colitis	Intestinal Exclu- sion	Ptomaine Poison- ing.	Chronic Fecal Im- paction	Hirsch Sprung's Disease	Chronic Dilatation of Colon	Colonic Ptois	Multiple Polyps of Colon and Rec- tum	Colonic Ulceration complication in- vagination and constipation oper- ated upon by Col- opexy and Sig- moidsopexy	Total
Appendicostomy	48	4	1	2	1	2	1	0	4	63
Appendico-Cecostomy	4	0	0	0	0	0	0	0	2	6
Gibson's Operation	6	2	0	2	0	1	0	2	1	14
Author's Cecostomy	19	1	1	0	0	0	0	0	1	22
Number	77	7	2	4	1	3	2	2	8	105

The good results obtained from *direct* bowel treatments are due mainly to the mechanic action of the fluid in cleansing and stimulating ulcers and removing offensive discharges and toxins and not to its temperature or chemic action. Solutions should be employed warm because heat soothes the bowel and ice cold irrigations excite enterospasm and cause unnecessary suffering.

Briefly stated, the most reliable stimulating and soothing remedies to employ are 1 to 2% solutions of boracic acid, ichthyol, quinine or permanganate of potassium. The strength of the solution should be increased when the stools are frequent and decreased as they become more nearly normal.

When the bowel is sensitive and fluids aggravate the patient's condition, mineral, sweet or crude oil irrigations containing bismuth should be alternated with or substituted for them.

Following appendicostomy and cecostomy and *through and through* colonic irrigation, patients afflicted with ulcerative colitis and other lesions responsible for chronic diarrhea, rapidly gain in weight, cease to be anemic, do not suffer from gas distention, intestinal pain, soreness or auto-intoxication and their stools shortly become normal in consistence and frequency.

Intestinal Exclusion, barring removal of the diseased bowel, is the most satisfactory way of surgically treating inflammatory lesions of the colon where irrigation fails, because it diverts irritating fecal matter and discharges from the affected gut and gives it a chance to

rest and heal. The writer has had occasion in a number of instances to verify the usefulness of this procedure in chronic diarrhea.

A segment of the intestine may be excluded by (a) *lateral anastomosis*; (b) *unilateral exclusion*, where the bowel is divided and closed above the disease and the proximal end is joined to the gut below and (c) *bilateral exclusion*, where the gut is severed and closed on both sides of the lesions and the upper extremity of the colon is anastomosed with the sigmoid, entero- or colo-sigmoidostomy.

Exclusion is always beneficial, frequently effects a cure, avoids the disgusting features of colostomy, the dangers and complications of resection, and may be employed to advantage in all varieties of ulcerative colitis.

Resection and Amputation. In aggravated cases where the patient's condition permits, complete removal of the diseased bowel by *enterectomy*, *cecectomy*, *colectomy*, *sigmoidectomy* or *proctectomy*, offers the greatest opportunity for temporary relief or a permanent cure. In some instances multiple resection is indicated and it is necessary to remove short or long segments of the intestine, but these sufferers withstand operation well. When the patient is extremely debilitated, it is sometimes advisable to short-circuit the intestine and permit him to recuperate before resecting the colon.

In a few urgent cases, the writer employed the Murphy button, but usually the through and through suture method was used, in lateral and end to end anastomosis.

Resection is practicable to within an inch of the pelvic floor but when the rectum is involved, anastomosis is unsatisfactory and mobilization of the abdominal segment amputation of the diseased bowel, and suture of the proximal end to the anal skin, is preferable.

Where from one to three inches of the lower rectum is involved, the gut can be freed, brought down, amputated and anchored to the anal skin with or without opening the peritoneum by means of perineal or vaginal excision. When the disease is high and extensive the writer prefers abdomino-perineal extirpation and joining of the proximal to the anal segment with preservation of the sphincter. The abdomen is opened and the bowel mobilized by dividing of the mesentery, superior hemorrhoidal artery and peritoneum, after which it is pushed into the rectum, and the peritoneal and abdominal wounds are closed. The patient is then placed upon the side, the sphincter is split, the rectum freed through a posterior median incision, and the operation is completed by amputating and suturing the bowel at the anus following repair of the split sphincter.

It is easier to resect the small intestine than the cecum, colon or rectum because the latter are usually bound down by their mesenteric attachments or adhesions.

Excision of the cecum and extremities of the ascending colon and ileum is not very difficult or dangerous.

In conclusion the writer wishes to emphasize the value of surgical treatment in chronic diarrhea incident to inflammatory and obstructive lesions of the colon and make a plea for its more frequent employment in this class of cases.

DR. GORDON: Mr. President—I do not like to have this paper go by default, as it is an exceedingly interesting one, and my objection to the continuation of it was merely on principle. I think I have been an objector in this matter as much, perhaps, as anybody in the Association, and I believe that the Association has profited by holding men absolutely to the time limit. This paper of Dr. Gant's has been of exceeding interest. I have had occasion within the past few years to observe, particularly, the treatment of some of these cases of diarrhea, largely confined to the colon—ascending, transverse and descending colon; and to my mind it is one of the advances of medicine, or, rather, one of the advances of surgery that has hardly been appreciated. The doctor has given us an exceedingly interesting account of the various conditions that may result from the excision of the colon, and his method particularly appeals to me, especially when you wish to get the injection into the small intestine as well as the large intestine. I believe it has done an immense deal of good, and cured hundreds of cases that otherwise would absolutely have died. Now those of us who were surgeons in the army during the Civil War know very well what resulted. We buried in the Department of the Gulf at least 10,000 people who died from diseases of the bowels alone. It was particularly bad in that department, the southwest, Louisiana, Mississippi, Texas and all up and down that section. So much was this the case that the boys always said: "It's a great deal more consequence to have bowels than brains down in this department," and such was the fact. Almost everybody had diarrhea or dysentery. By dysentery I mean the old bloody flux, for that is what we characterize as dysentery in preference to anything else. If we had known about this surgical treatment of diarrhea and dysentery, hundreds and thousands could have been saved; there is no question about it. For that reason I am glad that we have had so elaborate a paper as this has been, and I think it will excite an amount of interest in the members of the Association throughout the State that it has not had before. Of course, many men have been doing it in cases throughout the State, more or less; but it has not excited the general interest that, to my mind, it absolutely deserves. Therefore, I hope if anyone has had any experience in this matter, they will be very glad to come forward and give it, for this Association is largely an experience meeting, and every man who has had any experience should contribute to it. I still say that I believe that every man will understand that twenty minutes is the limit for papers, and that the discussion is to be confined to five minutes for each; and that is why I object to any paper being carried beyond the limit. If we let it go in one case, we must in another, and the first thing we

know some man has been shut out who has a very valuable paper—to him at least—and he has not had time to get it in.

THE PRESIDENT: I will ask Dr. Thayer if he will not say a word.

DR. THAYER: I have nothing to say.

THE PRESIDENT: You have five minutes in which to close the discussion, Dr. Gant, if you would like to add anything further to your remarks.

Dr. Gant in closing said that he did not resort to surgical until every other measure had been tried and failed. He had succeeded in curing many patients suffering from diarrhea, who passed twenty or thirty stools daily, by appendicostomy or cecostomy and through and through irrigation where other remedies failed to relieve the diarrhea. He advised changing the patient's posture during irrigation so that all parts of the diseased bowel could be reached.

In closing he took opportunity to thank the Society for the kindly manner in which his paper had been received.

***THE USE AND MISUSE OF HEXAMETHYLENAMINE.**

BY DR. C. M. ROBINSON, PORTLAND, ME.

Empiricism in medicine is fast disappearing, while, on the other hand, those who have gone too far in another direction, the so-called "therapeutic nihilists," are admitting their defeat. We are slowly establishing a sound basis for our therapeutics, relying more and more on drugs physiologically tested and standardized, or on those whose action may be followed by definite clinical or laboratory tests.

Our knowledge of the action and uses of hexamethylenamine has been steadily increased by careful clinical and laboratory investigation. It was discovered by Butherow about 1860 but little was known about the drug until it was presented to the medical profession by Nicolaier at Berlin twenty years ago. He first noticed that urines to which he had added 40% formaldehyde as a preservative showed no tendency to precipitate urates while the same urines not so treated soon became cloudy with urates. His inference was that formaldehyde was the long sought uric acid solvent and perhaps a specific for the "gouty diathesis." The problem of the administration of formaldehyde by mouth was solved by the use of a compound of formaldehyde and ammonia, hexamethyletetramine. The name urotropin or urotropin was applied to the drug, owing to changes which its ad-

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ministration brought about in the urine. To quote from an article by J. A. Flexner (1895), "Alkaline and putrid urines, urines containing mucus in excess, altered and ropy pus or pus forming organisms, uric acid or deposits of amorphous urates rapidly become restored to a normal acid reaction, the uric acid and urates remain in solution and the secretion, which has been diminished in quantity, is increased." (1)

In 1899 Nicolaier demonstrated the presence of the drug in the urine after administration by mouth, and ten years later Crowe (2) of Johns Hopkins, in his well known work, demonstrated its presence in bile, pancreatic juice, cerebro-spinal fluid, synovial fluid, saliva, milk, pleural exudate and circulating blood. In 1910, Barton (3) reported its elimination by the mucous membrane of the middle ear. The following year Armstrong and Goodman (4) found that hexamethylenamine is excreted in the sputum of patients with tuberculosis, bronchitis, pneumonia and asthma. Soon after this, Zak (5) showed its presence in the blisters of Herpes Zoster, Erythema Multiforme and Impetigo. More recently Hanzlik and Collins (6) (Cleveland) have also demonstrated its presence in the vitreous and aqueous humors and in edema (7) fluid.

The excretion of hexamethylenamine through these various channels is now an established fact, but the therapeutic value of such excretion is still, in many cases, an open question. As the drug is excreted from mucous membranes, it has been given in many diseases of the ear, nose and throat, with varying results. It has been used in bronchitis, pneumonia, tuberculosis, occasionally with some apparent improvement. Shattuck (8) found that the administration of hexamethylenamine to a large series of pneumonia patients had no apparent effect on the incidence of empyema as a complication. Crowe (9) has recommended it as a prophylactic against typhoid bacilluria, gall bladder infection and meningitis following injury. Miller (10) has had apparently good results from its use in common colds. Occasionally it has been used to prevent fermentation in the stomach (11). A case of orchitis secondary to tonsilitis is reported cured by the drug (12). In their experimental work on poliomyelitis, Flexner and Clark have apparently had some results from the use of the drug as a prophylactic, but not as a therapeutic measure in the control of this disease (13). The purported fields of usefulness for the drug are indeed many, and likewise include its use as a cure for phosphaturia (14), as an adjunct in the differential diagnosis of hydrocephalus (15) and as an excellent preservative for Russian Caviar (16).

In regard to its use as a bactericidal agent in the treatment of disease, investigations have shown that hexamethylenamine unchanged is wholly inert, and that it is active only when it is broken up and formaldehyde is liberated. Two years ago Burnam (17) found that only about 60% of cases taking urotropin even in large doses showed any formaldehyde in the urine. A few months later I had the opportunity of helping to collect a series of 300 cases in Dr. Cabot's G. U. clinic, reported by L'Esperance (18), in which we found that only 52% showed any formaldehyde in the urine. Since then a great deal of work has been done to show why hexamethylenamine is or is not broken up into formaldehyde. In his work on the subject, Hinman (19) of Johns Hopkins has made certain points very plain.

(1) An acid reaction equivalent to 2 c. c. $n/10$ NaOH per 10 c. c. urine is necessary for the active conversion of hexamethylenamine into formaldehyde.

(2) To be of any clinical value formaldehyde must be present in urine in concentration of at least $1/30,000$, and to be bactericidal, $1/6,000$.

(3) Hexamethylenamine in urine is converted slowly, and at the level of the kidney, urine does not contain formaldehyde in strong enough concentration to furnish antisepsis.

(4) Fluids should not be forced when the drug is given as a urinary antiseptic as it is usually better to have the urine remain in the bladder some time and so increase the concentration of formaldehyde.

(5) Hexamethylenamine may be broken up by acid in the stomach but the formaldehyde so liberated appears neither in the peripheral blood nor in the urine. To avoid this loss of the formaldehyde content, Hinman suggests the administration of the drug in the form of salol coated pills when necessary.

As a urinary antiseptic then, hexamethylenamine is of greatest value provided the urine is of sufficient acidity, and large enough doses of the drug are given to produce proper concentration of formaldehyde in the urine.

As to the other claims for the drug, the results of investigation have been less satisfactory. As a solvent for uric acid calculi, urotropin has proved to be useless (20) and in gout its value is extremely doubtful although it is supposed to combine with uric acid in the body. C. L. Greene (21) says, however, "Whether such a combination actually occurs in the tissues or takes place in the urine is not certain but it has been shown that about one-fifth of the urinary

uric acid content appears in the urine as di-formaldehyde uric acid during the periods of urotropin administration."

Hexamethylenamine has been found in practically every fluid of the body but as it needs a truly acid reaction (23) to liberate formaldehyde, it is apparent that in health this change can take place only in acid gastric contents or in urine.* If, then, in disease the body fluids do not increase in acidity and formaldehyde is not liberated, we have no rational indication for the use of hexamethylenamine in these various diseases and improvement after its administration is in all probability — "Post hoc non propter hoc."

Hanzlik (22) of Cleveland has been able to demonstrate formaldehyde only in acid stomach contents and urine after the administration of urotropin and has found the drug unchanged in all other fluids. In regard to the possibility of the body fluids becoming acid in disease he says, "In our observations on pathological fluids, the average and maximum acidity were no higher than in the corresponding normal fluids." Mestrezat, in his book on the cerebrospinal fluid, says that he has never found it truly acid except after post mortem changes. Palmer and Henderson (26) in speaking of the reaction of blood in disease, say, "slight variations of reaction may occur but death soon ensues if the change as determined by the most accurate measurements is appreciable." Thus, even though we find hexamethylenamine in those body fluids which are alkaline, the drug is present unchanged, no formaldehyde is liberated and the antiseptic value of the drug in these fluids must be nil.

As to its toxicity, hexamethylenamine has been shown to be practically harmless. Crowe has given 300 grains a day for several days without any untoward results. Occasionally, however, in patients with an idiosyncrasy, hematuria occurs, which immediately subsides when the drug is omitted. Very rarely a skin eruption (9) catarrh of mucous membranes and stomach irritation are noted. In the urine there may be a reduction of Fehling's solution simulating sugar but there is no reduction of bismuth solutions and no fermentation (24).

My object in reviewing the literature on this subject was to reconcile, if possible, the extravagant claims for the drug by various clinicians with the results obtained by scientific investigation.

*Since this paper was read, much has been written about the change in the reaction of the blood in marked acidosis. This refers, however, to the reaction as determined by titration with phenolphthalein as an indicator and not to its true physicochemical reaction as expressed in terms of hydrogen ion concentration. The hydrogen ion concentration of the body fluids remain practically constant, even in marked grades of acidosis.

Hexamethylenamine was once exploited as an invaluable drug to prevent and cure infection in the meninges, pleural cavities, and the biliary tract. Investigation has proved these claims untenable (7). If we are to be led by the light of scientific fact, we shall expect results from the administration of hexamethylenamine only in those secretions which are truly acid; or, from a clinical standpoint, the indications for its use will be limited practically to diseases of the urinary tract.

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DISCUSSION.

THE PRESIDENT: The discussion of this paper will be opened by Dr. Burrage.

DR. BURRAGE: Mr. President—With regard to the so-called Burnam test for formaldehyde in the urine, with which Dr. Robinson has had such extensive experience at the Massachusetts General Hospital, I would like to say that I have used the test frequently during the past winter in connection with ten cases of cystitis of pyogenic origin, and have found it a most valuable guide in the treatment of this condition. As Dr. Robinson has said, in order that formaldehyde shall be liberated in the urine, the urine must be acid; but, to go a step farther, in order that formaldehyde shall become bactericidal, or, in other words, that it shall approach the concentration of 1-6000, both it and the hexamethylenamine must approach a certain definite degree of concentration; otherwise no bactericidal action will result. A useful test for determining whether or not formaldehyde is liberated in sufficient concentration is the so-called Burnam test. With regard to the dosage of hexamethylenamine, less than 45 grains a day is absolutely useless, and often twice that amount will have to be used in order to obtain a sufficient concentration. So far as the dosage of acid sodium phosphate is concerned, which is by far the best means of producing an acid urine, I have found in some cases 45 grains a day sufficient, in others 180 grains, to furnish the degree of concentration necessary to obtain bactericidal action. In addition to the two points mentioned, there is also the fact, that, instead of flushing the bladder and kidneys, which used to be the method of procedure, the intake of water should be limited to at least a quart a day, in order that the formaldehyde shall concentrate in sufficient amount in the urine, and in order, also, that the patient may be enabled to retain the urine in the bladder long enough for bactericidal action to take place.

THE PRESIDENT: We would be glad to hear from other gentlemen on this subject.

DR. HODGKINS: Mr. President—Some have advised giving the acid phosphate, not the neutral phosphate, in conjunction with the hexamethylenamine, so as to get an acid medium. It has occurred to me that the neutral phosphate may have a specific action of its own in certain cases of retained product; because in some part of materia medica I have noticed it claims that neutral phosphate of soda increases the excretion of the urates, so that, if you did not get the acid condition you wished, you would at least get increased excretion of bodies that would help any condition that adds to the formation of formaldehyd in the urine.

THE PRESIDENT: Surely, experience with this drug is so universal that there ought to be a great many gentlemen who can offer testimony as to their results. I hope we may hear from some others.

DR. D. A. ROBINSON: Mr. President—Since hearing this paper, I have been wondering what happened to a patient of mine last summer. I was at the seashore, and a lady who is in charge of one of the large fitting schools for girls called me, saying that she had fallen and injured her knee. I went to see her, and found the knee swollen. I also found both ankles swollen. I said, "You haven't injured all of them?" She said, "No; I have been troubled that way quite a while." I asked her if she had kidney trouble, and

she said no. I said: "Have you had any bowel trouble?" She said she had been taking the Bulgarian bacillus and lactobacillin tablets for intestinal troubles. She was on crutches as a result of the joint swellings. Not knowing what else to do, having read of the antiseptic qualities of hexamethylenamine, I gave her ten grains of urotropin three times a day. In three days the swelling began to go down, and before three weeks had elapsed she was entirely well of it and walking around. Now if urotropin is not at all distributed through the intestines, I do not quite know how or what cured the patient. She had been ill for about a year and under the care of physicians in Philadelphia; and, she felt better in three days after taking the urotropin, and in three weeks had discarded the crutches and the swellings had all disappeared. I hope the doctor when he speaks last will give some explanation of this.

DR. STURGIS: Mr. President—I had a little experience with a man who came to the office, and gave a history of a little difficulty with cystitis. I prescribed some tablets of hexamethylenamine. He came back the second day, and told me what I had been giving him. He said: "I know what you have been giving me, because it brings about hematuria every time." That is the only case I ever had come under my own observation; but he told me that he had been treated with it before; and he said with the same result every time. He did not tell me of that in advance or I should not have tried it. I had to dodge around and give him something else. It was interesting to me to know that it would cause hematuria with that man, according to his own statement, every time he tried to take it.

DR. YORK: I think this drug is given today nearly universally for cystitis. I have given it myself, but have not seen any results from it, and I do not expect to—especially cystitis due to an enlarged prostate. I fail to see where one can expect any results from urotropin in cystitis due to a dammed-up bladder. Instead of giving such things indiscriminately, I should think it would be wise to find out in just what cases you might expect results. All you can expect, anyway, is to see a little of the formaldehyd liberated in the bladder; and, according to the evidence here, it has got to be in a concentration of 1 to 6,000 to be of any use. I fail to see how it can have a very cleansing effect on an infected bladder. I do not believe its use is in those cases.

DR. BADGER: Gentlemen—I was interested in the remark of Dr. Sturgis in regard to hematuria, because I had a patient where the same condition existed after giving urotropin, and I was at a loss to account for it. I never had heard of it before nor since, and I was interested to hear that from Dr. Sturgis.

THE PRESIDENT: If no one else desires to be heard, I will invite Dr. Robinson to close the discussion.

DR. C. M. ROBINSON: In regard to Dr. D. A. Robinson's query as to the action of urotropin on the intestines, the drug is usually absorbed in the upper part of the intestinal tract. It is absorbed as hexamethylenetetramine, and is secreted as such in the various fluids of the body. Cases in which it is given in intestinal putrefaction usually show no trace of formaldehyd in the bowel. When, for some reason, the drug goes to the large intestine before absorption, and acid is present there, then we may find formaldehyd in the large bowel. This may be the explanation of the case cited.

As to the statement that acid sodium phosphate and hexamethylenamine may be given together. When given together the acid acts upon the basic el-

ement of the hexamethylenetetramine, forms the ammonium phosphate, and frees the formaldehyd, so that the action takes place in the solution or in the stomach. The formaldehyd is absorbed and broken up in the system, principally in the liver, into formic acid; so that the formaldehyd liberated in the stomach never reaches the peripheral circulation or the urine. The idea of giving acid sodium phosphate with urotropin is based on a fallacy, because it must necessarily split up the drug when given with it. It should be given after an interval of two hours or more, so that the urotropin may have passed and not be split up by the acid in the stomach.

In regard to giving other drugs with the hexamethylenamin: I had occasion the other day to prescribe the drug, and the patient afterwards called up my office and said that the druggist had given him some new kind of tablets that he had never had before, and he wanted to know if they were all right. I called the druggist up, and he said they were exactly what I had prescribed. The patient finally brought the tablets around to me. I put one of them in water and it was distinctly effervescent, and definitely alkaline, although hexamethylenamine was present. I went to the druggist and he finally showed me what he had dispensed. He had dispensed a five-grain tablet of hexamethylenamine with five grains of lithium citrate. He was giving alkali diuretic, which was making the urine alkaline instead of acid, thus entirely inhibiting the activity of hexamethylenamine.

In speaking of cystitis due to obstruction of the prostate: I think the results obtained by Dr. York are different from results obtained by a great many men who use the drug. By washing the bladder, and keeping the urine at a moderate concentration of formaldehyd, the bladder may be kept in a condition where it may be catheterized for years without any bad effects of cystitis. There are certain conditions, of course, in which the drug is contraindicated, as in acute gonorrhœa, and genito-urinary tuberculosis, especially in those cases of renal tuberculosis in which there is bladder involvement and irritation.

There is one more thing! Some of the text books, Cushney for instance, says that after the drug is given, formaldehyd is found in bile and in the pancreatic fluid. That is not strictly true and has not been substantiated by other investigators. Hexamethylenamine is present but unchanged.

***PNEUMONIA.**

BY E. C. COOK, M. D., YORK VILLAGE.

"Lobar-pneumonia is a constitutional disease with a local focus of infection, caused by certain specific parasites which enter the air cells and cause certain well defined symptoms and conditions of the lung tissue and generate a toxin which infects the entire system. Death is usually caused by the virulence of this toxin, the patient is poisoned."

The aim of this paper is not to prove this definition correct, but to call attention to it.

*Read before the 62nd session of the Maine Medical Association, June 10, 1914.

Most physicians seem to forget the definition as soon as graduation and treat all kinds of lung trouble as one disease. In a very recent, first-class journal, is a long article in which the author seems to think Broncho-Pneumonia and Lobar-Pneumonia are usually confused, and succeeds in making confusion worse confounded by introducing a new name — "febrile type of fibrinous pneumonia." He goes on to explain, however, that he never saw an afebrile type.

That lobar-pneumonia may be complicated by some bronchitis is well known, but there are other and more important ones—of the heart and kidneys.

Lobar-pneumonia is undoubtedly as old as man, or older, for as it is found in the lower animals there is no reason to doubt its existence before man climbed down out of the trees or even as soon as he crawled up out of the water. The disease was not then as commonly used to reduce the population, perhaps because such plagues as famine and small pox were more effectual.

Known to our forefathers as lung fever in common with several diseases having their headquarters in the chest, it still, under another name, offends our nostrils.

Any name would serve as well but in the interests of humanity it should represent the same condition at all times.

Pneumonia respects no class or condition. It mixes freely with all ages in all climes. However, in those countries where the weather is less insurgent, as near the equator and the poles, it is much more exclusive and but rarely obtrudes itself. In this country, those States west of the Rocky Mountains are not so freely visited, while those where the negro predominates are more to its taste.

Although this disease is met at all seasons of the year, it becomes more common late in winter. While this fact has been used to prove that cold weather and "catching cold" is a cause of pneumonia, it is also true that the human, like other animals, dens up in winter, to a certain extent, and that public gatherings, from poker dens to churches, are more freely visited. All diseases, which, like diphtheria and small pox, are dependent on direct or indirect contact for their conveyance, are more common in winter months. Pneumonia is no exception to, but rather follows the rule; this helps to prove it is due to contagion.

Epidemics of pneumonia are recorded. There are those who see the marks of this disease in the plague which visited Athens and the black death which devastated Europe in the fourteenth century. However this may be, epidemics do occur and every community experiences years when it is not only abnormally prevalent but unusually fatal. In York, in December, 1910, in the Agamenticus district, occurred seven cases, and they all died, notwithstanding the fact that

I only treated two of them. Prisons, schools and hospitals have suffered from these epidemics; and it is not unusual for two or more cases to occur in the same family in a short time.

The disease becomes more fatal as these epidemics progress, the weaker individuals, being first attacked, recover, and later the stronger become infected and succumb. Those who, through nursing pneumonia patients, contract the disease, present a more virulent type than that of the original patient.

The mode of transmission from patient to patient is not well understood, precautions found sufficient in other diseases are not always adequate. The use of antiseptics in the care of the sputum and disinfection of all clothing and rooms known to be infected and isolation as far as possible of the patient should be practiced in all cases. Predisposing to this disease are exposure to cold and hunger. That these are only predisposing is proved by the fact that it does not always follow, and, on the other hand, children and the aged, who do not suffer from either, are the very ones who increase the mortality of the disease. Injuries to the lung tissue, irritating substances inhaled, as æther or dust; indoor occupations, change of climate from cold to hot countries, and former attacks, all predispose to pneumonia.

Age does not seem to have any bearing except that young adults, especially males, are attacked most frequently—as might be expected—because of their exposure, while infants and the aged give the highest mortality by reason of less strength.

The history of the treatment of pneumonia in the past teaches us that there is nothing yet produced which deserves to be considered. The mortality from the disease has not changed in one hundred years of recorded treatment and this lapse of time has seen all kinds of doctors use all kinds of treatment from hot poultices in close rooms to ice on the unprotected roof.

I will not spend time reading the *Materia Medica*, but will name a few medicines and forms of treatment which have had their day as specifics and have in turn been found wanting—Poultices, Ice, Cupping, Jackets; Exposure to light and air; Hydrotherapy, Bleeding; the use of normal salt solution; Quinine, Digitalis, Alcohol; Camphor, Ammonia, Adrenaline, Guaiacol.

I have said there is no treatment for lobar-pneumonia—it is true—but we can and should untiringly treat the patient.

The disease is self limiting and the patient will surely get well if he lives—long enough.

It is of academic, not clinical, importance what lobe is involved or how many. One case will die with only a part of one lobe involved and another will live with five diseased.

The diagnosis having been made, there is little to be gained by repeated examinations. What satisfaction the physician may derive is at the cost of disturbing the patient when absolute rest is of the utmost importance.

In Ashhurst's surgery, we read: "If the products of pathogenic bacteria enter the circulation but the bacteria themselves remain in the tissues at the seat of primary infection, the condition is called *toxemia*. The presence in the blood of bacterial toxins causes the usual constitutional symptoms of inflammation." And proceeds to mention all the symptoms of pneumonia, chills, fever, rapid pulse and respiration. Pneumonia is then a toxemia and should be treated as such.

Good nursing is of more importance than medicine, egotism forbids my saying a good nurse is more important than a doctor.

All the light, air and water, possible—a little easily digested food often — Rest with a capital R first, last and all the time.

The bowels should be well opened early and afterward daily, if it can be accomplished without straining at stool, and always on the bed pan.

Strychnine in 1/50 gr. doses every three hours when the heart seems to call for help — supplemented by Digitalis gr. 1/50, if it is needed, seems to have done more than the books would lead one to expect.

Morphine in one sufficiently large dose is indicated for the relief of pain, if it cannot be controlled by heat or ice.

There is hope that some good may come out of the amount of work that is being done with serums, but none has yet been found which may be depended upon.

Vaccine, to be of use must be autogenous, and there is not time to make one.

It is not my idea to remove pneumonia from the medical side to the surgical, but I would have it treated as the surgeon would treat any toxemia, the cause of which he could not remove.

Place the patient in the best possible situation and condition to resist and throw off an infection. Open and stimulate all the avenues of excretion. Bowels, skin, kidneys, lungs, should all be given an opportunity to do their level best.

DISCUSSION.

THE PRESIDENT: I will call on Dr. Addison Thayer, who has consented to open the discussion of this paper.

DR. THAYER: Mr. President—I doubt if any one of us, unless perhaps Dr. Gordon, can remember the founding of the Maine Medical Association;

but I think there are not a few of us who can remember many papers on pneumonia that have been read here. I question if anyone can recall a paper like this of Dr. Cook. The most of them have been papers which have been really suggested to the writers by some unusual experiences of theirs which have been encouraging to them in the use of some special line of treatment in dealing with this disease; and yet Dr. Cook says that, for one hundred years, the mortuary statistics, when compared one year with another, the present with the past, remain just about the same, in spite of the supposed discoveries that we in this Association, and others everywhere, have thought we have made relative to a direct and specific treatment of this disease. We used to hear about lung fever. We used to think of lobar-pneumonia as a specific disease, different from any other form of pneumococcus infection. We now recognize that the same organism which causes lobar-pneumonia may cause arthritis, may cause meningitis, may cause broncho-pneumonia, and various other disturbances in the body. Although our conception of the pathology of the disease is now radically different, we have never yet found anything which makes us able to do what we can do, for instance, in the treatment of malaria or myxedema, or any other disease that ends in "a," as a specific thing, the one thing which we should use to the exclusion of others. For instance, in the early treatment of pneumonia the most of us think that, in a certain portion of cases, phlebotomy will do good. We hear little now about aconite or veratrum veride. We have seen the rise and fall of coal tar products in the treatment of pneumonia; and, while in certain stages of the disease we use them with caution, yet we know their dangers. As Dr. Cook has said in his paper, serums have raised our hopes; vaccines also; and I think if there is any one thing in which the confidence of a majority of us here is placed, it is probably in something of that kind. But it is rather a hope than a realization, still; and, when we come back to the real situation as we find it, it is a looking forward to something which will explain why pneumonia differs from any other disease that we know of, in that it has a marked crisis, and, theorize as we may about the cause of that crisis, we have not yet arrived at an understanding of it. It does seem as though the transformation that will take place in a few hours when that crisis comes might be hastened by something. However, the rules of the Association induce the President to believe in abortive treatment of discussion, and we can only hope that we shall find, as I believe we shall eventually, an abortive treatment for pneumonia.

DR. GEHRING: Mr. President—I think we have passed beyond the first flush of enthusiasm which attended the introduction of vaccines for the treatment of various infections. Therefore, if I may have a moment or two, I would like to speak of the use of vaccines in the treatment of pneumonia, based on my own limited experience and upon observation of the experiences of others. Pneumonia is an infection. The frequent respirations and the temperature are due to the action of toxins (produced by whatever organism is causing the trouble) upon the nerve centers. These toxins have a deleterious effect upon the musculature of the heart, and affect the nerve control of the heart as well, causing thereby a cardiac failure. Now the objects in pneumonia, it seems to me, are to kill the organisms and neutralize the toxins. Whether or not these are possible of attainment depends upon certain factors. It depends, in the first place, upon the stage of the disease in which one sees the patient; secondly, on the virulence of the infection; and, thirdly, on the ability of the patient to respond to the stimulus of the inoculation. If we could

kill the bacteria, the disease would be terminated. We know from experience that a therapeutic inoculation with vaccine does stimulate, on the part of the system, the production of certain defensive substances. We call them antibodies. The pneumococcus vaccine, in particular, causes the elaboration of substances which kill bacteria, and also a certain amount of anti-toxin. Therefore, if the pneumococcus is the cause, which is not always the case, and we give therapeutic doses of pneumococcus vaccine, we get results because that does increase the elaboration of the defensive substances in the system. There are certain obstacles to the application of any treatment in pneumonia. First, patients almost never present themselves until there is consolidation. In the stage of consolidation, if one understands its pathology, one knows very well that he cannot expect immediate results from the application or injection of any vaccine. This is not possible. The mechanical condition of things in the chest does not permit of it; but one may, by giving vaccine at that time, increase the sum total of defensive bodies (which the system itself generates) against the time of resolution, when a large amount of toxin is liberated into the system. The first obstacle, then, to the cure of any patient of pneumonia is the fact that he does not present himself early for treatment. The second is the persistent refusal on the part of most medical men to regard every case of pneumonia as potentially fatal; it is looked upon altogether too lightly. The third obstacle is the difficulty of determining the exact nature of the infecting agent. It may be the pneumococcus, the streptococcus, the typhoid bacillus, the colon bacillus, the influenza or the Friedlander bacillus. If one knows exactly what organism is concerned, and will give sufficiently large and frequent doses—five million of pneumococci is playing with the thing—he will get results. I do not mean to say that this measure ought to be employed to the exclusion of all else that Dr. Cook suggests, but I feel that it alone constitutes *scientific treatment*.

New and Non-Official Remedies.

During December the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Non-official Remedies:

Merck & Co.: Arbutin, Merck; Benzene, Merck H. P., Crystallizable; Digitoxin, Merck; Silver Citrate; Silver Lactate.

E. R. Squibb & Sons: Pyocyaneus Vaccine; boxes of 2 ampules containing respectively 100 and 500 million killed bacilli.

Herpes Zoster.

Herpes Zoster Ophthalmicus, a rare but obstinate disease of the skin combined, when it affects the side of the nose, with a very obstinate and oftentimes destructive disease of the eyes, is one of the latest diseases asserted to have come under the curative action of the intravenous use of salvarsan or neo-salvarsan.

Abstracts from Current Literature.

(N. Y. Medical Journal, Dec., 1914.)

Treatment of Puerperal Septicemia or Bacteremia by Use of Magnesia Sulphate.

By Raleigh R. Huggins, Pittsburg, Pa.

The treatment of puerperal septicemia or bacteremia has been one of great interest. The employment of vaccines, sera, and various kinds of chemicals intravenously has been tried with uncertain results. The satisfactory results obtained from the use of magnesia sulphate locally in the treatment of erysipelas and various other forms of infection led the writer to try it in the treatment of puerperal infection. After experiments had proven its safety it was given intravenously and in many instances the results have been most satisfactory; at first it was given in a 1 per cent solution of saline and not more than thirty grains at one time. Later it was learned that much greater quantities of the drug can be given with safety if administered slowly. We have never given more than 100 grains of it at one time in a solution of 1 per cent, but Dr. Harrar has used 250 grains with no alarming effects. At the suggestion of Dr. Harrar distilled water has been used instead of saline and there has been fewer chills following the administration. Chills are less liable to occur if the fluid is given at the proper temperature. There has been no accidents from its use and we have given it more than one hundred and fifty times. It has been repeated several times in the treatment of the same patient at twenty-four intervals.

Experiments have not explained its action. It is not bactericidal, yet in certain instances the effect is so marked that one is inclined to the belief that in some way the tissues are stimulated to greater resistance. Whether agglutination of the bacteria occurs as a result of its presence, or the production of opsonins increased, remains unknown. It has been given in the treatment of twenty-five cases of streptococcemia, with two deaths. Some of these patients were extremely ill and blood cultures showed the presence of the hemolytic variety of the streptococcus. It has been of undoubted value when administered in the acute stage of streptococcic toxemia before it has been possible to demonstrate the presence of bacteria in the blood stream and when we are unable to decide what the final extent of the infection may be. Its use intravenously in pneumococcic and other forms of streptococcic blood stream infection have not met with the same success. This leads one to be doubtful about its value in this form of infection, and, after

all is said, the effects noted in so small a number of cases may only be a coincidence.

Dr. James H. Harrar of New York City adds the following twelve cases.

Three cases were admitted to the hospital late in the course of an acute pyemia with multiple abscess formation, and died shortly after a single infusion given as a last resort. Three more with such complications as peritonitis, panophthalmitis, and septic embolus in the pons, died after three or more injections with only temporary improvement. Six cases of hemolytic streptococci in their blood recovered. Some of these during their convalescence developed secondary abscesses, but with increased resistance were able to overcome their infection. Four of the six that recovered were desperately ill when first seen, delirious, and in a low typhoid state. These were of the type in which the prognosis heretofore has been quite hopeless. The other two were cases that ran high temperatures, but had no mental symptoms, and did not give the impression of being in very bad shape at any time.

We should not leave the subject of bacteremia without a word of caution as to the importance of careful detail in taking the blood cultures. Contamination of the culture is the easiest thing in the world, and a very great responsibility rests upon the bacteriologist in making a positive diagnosis.

So much for the known value of magnesium sulphate injections in streptococcemia. As Dr. Huggins admits, the reported cases are as yet too few in number. Now, as to the dangers of these infusions. There are the usual dangers involved in the giving of any intravenous infusion. The aseptic technique, of course, must be perfect. There is also danger in using an infusion in cases of extensive thrombosis. Embolism may be produced by the breaking off of a portion of a thrombus with the increase of blood volume.

E. B. FOLSOM.

Book Reviews.

Progressive Medicine.

A Quarterly Digest of Advances in Medical and Surgical Sciences, edited by Dr. Hobart Amory Hare. Lea and Febiger, Philadelphia and New York. Volume XVI, parts 3 and 4.

Of the making of books on all the infinite branches of medicine there is no end, and of the making of reviews of those books, there is still less an end, and finally of the annotations of the reviews of all

those books the same remark may be made. They are unending, yet serve the very valuable purpose to save the impossible attempt of the busy student to read all that is printed on medicine.

In the present numbers of this practical series we find all of the papers for 1914 on diseases of the Thorax, Dermatology, Syphilis, Obstetrics and Nervous System. Innumerable articles are culled from current literature and a valuable index goes with them all. With this at hand the student can pick out what he chooses and pass along elsewhere. Many of the suggestions for physical examinations are very well illustrated, as well as many syphilitic, tuberculous and dermatological specimens.

From a careful reading of many of the articles herein reviewed, we are bound to say that the reviews in this collection give a well balanced, accurate synopsis of all of the subjects involved.

Number IV treats of diseases of the Digestive Tract, Kidneys, Genito-Urinary diseases, Surgery of the extremities, Shock, Anæsthesia and Fractures, whilst to it all, is added a practical therapeutical referendium of much value.

J. A. S.

International Clinics.

J. B. Lippincott. Philadelphia and London. 20th Series, 1914.

The present volume contains papers on Diagnosis and Treatment, on Medicine, on Electrotherapeutics, on Surgery, on Child Welfare and on Medical Problems. There are many valuable illustrations and the frontispiece, showing an Obstruction of the Ileum with undigested peas and a tape worm is worth owning as a curiosity.

A paper on Vaccines in Typhoid with its eighteen cases emphasizes the successful value of this latest treatment of a pernicious disease.

We are glad to see that the author of the paper on Treatment of Diphtheria calls himself a Pædiatrist, for that is the proper way in which to spell a specialty, whilst as most writers spell, it means a foot, and not a child. The treatment mentioned is suggestive.

Dr. Frescolin's paper on The Foot is important in these days of unpreparedness, for an army marches on its feet, despite that well worn aphorism concerning the stomach. Dr. Robin briefly calls attention to Phanzone in Diabetes, as a promising remedy. Hypodermoclysis is vaunted as a cure in many diseases, and Dr. Pembert vouches for dieting in rheumatoid arthritis. The list of foods suggested, is valuable to the practitioner. A clever paper on vaccination urges that guarding of the vaccinated from infection of the wound, should be as compulsory as the operation itself. If done, we should hear nothing of tetanus or syphilis communicated by the vaccination process, as asserted by anti-vaccinationists.

Ninety pages of the surgical section are devoted to the Daily Clinique of Denver, and so many cases are reported, that space forbids special mention of any. The surgeon seeking for information should consult the index.

Under medical problems, Dr. Ball inveighs against the extortion of big fees from rich men. In brief; this volume contains a wealth of information, for it illuminates the path of the busy practitioner, and if not throwing sufficient light on all diseases, it throws enough to cause us to avoid mistakes and pitfalls in emergencies and daily practice.

J. A. S.

Collected Papers by the Staff of St. Mary's Hospital, (Mayo Clinic) 1913.

W. B. Saunders, Philadelphia and London, Publishers.

This well known volume has made its appearance, being the papers of some twenty-eight members of the hospital staff, written on several special subjects.

Cancer of the Lip, Stomach and Breast, adequately considered in several chapters, is most interesting and valuable. The chapter dealing with breast cancer is especially to be noted, having unusual bearing on the supposed etiology and histogenesis of this disease.

Goitre, from a pathological and experimental standpoint, is given considerable space and the article entitled "The Summing-up of the Goitre Question," by Charles Mayo is excellent.

Other chapters, presenting the subjects of empyema, syphilitic media-stinitis, tuberculosis of the spine, fractures and anæsthesia, are of exceeding interest.

Dr. William J. Mayo, in an article entitled "Notes on the Surgical Clinics of Europe," describes the operative work which he has witnessed in Bumm's clinic in Berlin, Mummery's clinic in London (with especial reference to the rectal surgery) and in Kuttner's Clinic in Breslau. He commended the latter for his work on the spine and gastro-intestinal lesions.

Dr. Lane's clinic in London and work comes in for its share of comment and praise. Regarding the open treatment of fractures and too, the role of the large intestine in the etiology of disease, Dr. Mayo thinks that Lane's theories are proving to be of more worth than was at first thought. Dr. Mayo devotes a great deal of time and space to the review of his operation of ileosigmoidostomy and colectomy.

A. P. L., Jr.

Medico-Legal.

**The New Federal Antinarcotic Law.*

As is generally known, H. R. 6282, commonly called the Harrison bill, has become a law which will be in effect on and after March 1, 1915. As it affects every druggist under the jurisdiction of the United States, we give the following digest of the law and append also a list of products of the Lilly Laboratories coming under the provisions of this Act, and also a list of those containing the narcotics mentioned, in quantities exempted by the law.

TITLE OF THE LAW —

An act to provide for the registration of, with collectors of internal revenue, and to impose a special tax upon all persons who produce, import, manufacture, compound, deal in, dispense, sell, distribute, or give away opium or coca leaves, their salts, derivatives or preparations, and for other purposes.

TIME WHEN IT GOES INTO EFFECT —

March 1, 1915.

WHAT IT COVERS —

Opium, coca leaves, or any compound, manufacture, salt, derivative or preparation thereof.

PREPARATIONS THAT ARE EXEMPT —

Those which do not contain more than the following quantities of any of the items named, or of any salt or derivative of them, per fluid ounce, or if not a liquid, per avoirdupois ounce: opium, 2 grs.; morphine, $\frac{1}{4}$ gr.; heroin, $\frac{1}{8}$ gr.; codeine, 1 gr.

Also liniments, ointments and preparations for external use only, unless they contain cocaine or any of its salts, or alpha or beta eucaine or any of their salts, or any synthetic substitute for them.

These exemptions hold good only when such preparations are possessed or supplied as medicines and not with the intent of evading the law.

Also decocainized coca leaves and preparations of coca leaves which do not contain cocaine.

REGISTRATION AND FEE —

Every person who possesses or handles the items covered by the law in any of the ways indicated in the title, must register with the collector of internal revenue of the district, his name or style, place of business and place or places where such business is to be carried on. There are exceptions to this which are stated under "Carriage and Delivery" and "Possession of Narcotics."

The registration tax is \$1.00 payable at the time of registration and annually thereafter on or before July 1, of each year.

Employees are not required to register.

USE OF BLANK FORMS —

The sale, barter, exchange, or giving away of any of the drugs mentioned can lawfully be done only in pursuance of a written order from the person to whom the drug is sold or given. (See exceptions below). This order must

*Abstract of the law by Eli Lilly & Co.

be on a blank form supplied for that purpose by the Commissioner of Internal Revenue. The blank forms can be obtained only by a registered person, and can be used only by the person to whom they are issued. The orders must be preserved by the dealer for two years in a way readily accessible for inspection. The person giving an order must make a duplicate on a blank form provided for the purpose which he must preserve for two years.

TRANSACTIONS WHICH DO NOT REQUIRE BLANK FORMS —

1. Dispensing or distribution of the drugs to a patient by a physician, dentist, or veterinary surgeon in the course of his professional practice only. However, such physician, dentist or veterinary surgeon must be registered under the law and must keep a record of all the drugs so dispensed or distributed, as to the date, the amount, and the name and address of the patient, except such as may be dispensed to a patient upon whom he personally attends.

2. Dispensing on the written prescription of a physician, dentist, or veterinary surgeon, registered under the law. The prescription must bear the date when written and the signature of the prescriber, and must be preserved by the dispenser for two years.

3. The sale, exportation, shipment, or delivery of the drugs named, from the United States, or its insular possessions to any foreign country.

4. The furnishing of such drugs to any officer of the national, state, county or municipal government who is lawfully making purchases for the use of federal, state, county or municipal hospitals or prisons, or the U. S. Army, Navy or Public Health Service.

SUPPLY OF BLANK FORMS —

These are to be prepared by the Commissioner of Internal Revenue and distributed through the collectors of internal revenue and only to those persons who have duly registered and paid the special tax in their particular district. The price to be fixed at an amount not exceeding \$1.00 per hundred. The collector is to keep a record of the names of purchasers and the number of forms purchased.

He must also have the name of the purchaser stamped on each form, which can be used by no other person, and by the purchaser only for the purpose of obtaining the drugs for the conduct of lawful business or the legitimate practice of his profession.

STATEMENTS OF PURCHASES —

Any person registered under the Act must furnish, as may be required by the collector of his district, a statement, verified by affidavit and covering not more than three months immediately preceding the request of the quantity of such drugs received during such period, the persons from whom received, the amount received from each person, and the date when received.

CARRIAGE AND DELIVERY —

No one, unless registered, can lawfully send, ship, carry or deliver any of the drugs named, within the jurisdiction of the United States with the exception of the following:

Common Carriers.

Employees acting for a registered employer.

Delivery of the drugs prescribed by a registered physician, dentist or veterinary surgeon.

Officers of government (national, state, county or municipal) acting within the scope of their official duties.

USE OF RECORDS —

The duplicate order forms, and the prescriptions required to be preserved, and the statements filed with the collectors, shall be open to the inspection of the officers, etc., of the Treasury Department duly authorized for that purpose, and to state and municipal officials charged with the enforcement of any anti-narcotic law.

No one shall furnish any of the information preserved in such records except as provided by the law and for the purpose of law enforcement.

Certified copies of the statements of purchases may be furnished by the collector upon written request, to such of the officials of any state, or its organized municipalities, as have authority to inspect such records and then upon the payment of a prescribed fee.

Collectors are authorized to furnish to any person, upon written request, a certified copy of the names of any or all persons registered in their respective districts, upon the payment of \$1.00 for each 100 names or fraction thereof.

POSSESSION OF NARCOTICS —

Possession or control by any person of the drugs named is unlawful unless such person is registered and has paid the special tax, except in the case of (1) an employe of a registered person, or, (2) a nurse under the supervision of a physician, dentist or veterinary surgeon registered under the Act, and who have such possession or control by virtue of their employment and not on their own account, or, (3) possession of such drugs prescribed in good faith by a registered physician, dentist or veterinary surgeon, or, (4) officials of national, state, or municipal government in their official capacity, or, (5) a warehouseman holding possession for a registered person, or, (6) common carriers transporting such drugs.

PENALTY —

Failure to comply with any of the requirements of the Act, upon conviction is punishable with a fine not exceeding \$2,000 or imprisonment of not more than 5 years, or both.

County News.

FRANKLIN.

The regular meeting of the Franklin County Medical Society was held in the Masonic Club rooms, Farmington, Dec. 18, 1914.

Officers for 1915 were elected as follows:

President — O. B. Head, New Sharon.

Vice President — A. I. York, Wilton.

Secretary and Treasurer — G. L. Pratt, Farmington.

Censor for three years — H. S. Pratt, Farmington.

Delegate to the Maine Medical Association — Dr. B. F. Makepeace, Farmington.

Dr. Donald B. Cragin of Waterville gave us a very interesting talk on some of the interesting things he saw in Europe.

G. L. PRATT, *County Editor*.

PISCATAQUIS.

The annual meeting of the Piscataquis County Medical Society was held at the Law Library rooms in Dover on Thursday evening, Jan. 21, 1915.

Dr. Richard F. Chase of Portland gave a very valuable talk on "The Diagnosis of Digestive Diseases." A free discussion followed the talk and all agreed that Dr. Chase gave us one of the most interesting evenings in the history of the local society.

Dr. Dore, our secretary, reported on the meeting of county secretaries at Bangor and several suggestions were made and carried out for the betterment of the society.

The officers elected for 1915 were as follows:

President — Dr. C. C. Hall, Foxcroft.

Vice President — Dr. E. T. Flint, Foxcroft.

Secretary and Treasurer — Dr. G. E. Dore, Guilford.

Delegate to the Maine Medical Association — Dr. E. H. Marsh, Guilford.

C. C. HALL, *County Editor*.

YORK.

The seventy-ninth quarterly session of the York County Medical Society was held in the City Building, Biddeford, Wednesday, Jan. 6th. The meeting was called to order at noon by Dr. J. W. Gordon, president of the Society. The minutes of the October meeting were read and approved. One application for membership was presented and referred to the Board of Censors.

The Committee on Resolutions reported as follows:

Whereas, through Divine Providence, the York County Medical Association has lost two of its most esteemed members, Dr. Frederic L. Davis of Biddeford, and Dr. Frank H. Hobbs of Waterboro, and whereas, we deeply mourn the loss of two such active, valued, and respected members of the Association, and deeply sympathize with the relatives and friends of the deceased: Resolved— That the medical profession of this county and State has lost two of its most able and faithful members, and their relatives and friends have suffered an irreparable loss. Resolved, That these resolutions be spread upon the records of the Association, and a copy of them forwarded to the relatives of the deceased.

DR. M. H. FERGUSON.

DR. J. D. HALEY,

DR. J. M. O'CONNOR.

It was voted to accept the resolutions.

A committee of three were appointed to report at this meeting in regard to recommended changes in the constitution, and they reported as follows:

Moved to amend Art. V of the constitution by striking out, in line 5, the word "two" and substituting therefor the word "three;" and adding after the word "association," in line 7, the words "provided that, at the first election after these changes are made in Art. V of the constitution, one delegate shall be elected for *one* year, one for *two* years, and one for *three* years."

It was voted to accept this report and it was announced that a vote will be taken on the proposed amendment at the April meeting.

The secretary's report showed a membership of 73 during the year 1914, of whom two have died and one located in another county. Our membership is approximately 70% of the whole number of eligible physicians in York county. The report was accepted.

The treasurer's report showed receipts during the year 1914, \$229.46; expended, \$188.95; balance in treasury, Jan. 1, 1915, \$40.51. Report was accepted.

Dr. J. M. O'Connor, Biddeford, read a report of his attendance at the conference of county secretaries and editors in Bangor, Dec. 8th. There were several good suggestions offered in this report, and it was voted to accept it and have it placed on file.

A Nominating Committee of three were appointed, and they brought in the following list of officers, who were elected, the secretary having cast the vote for the Society:

President — Dr. Joseph M. O'Connor, Biddeford.

Vice President — Henry I. Durgin, South Eliot.

Secretary — Arthur L. Jones, Old Orchard.

Treasurer — Chas. F. Traynor, Biddeford.

Board of Censors for 3 years — Dr. Jean N. L'Heureux, Biddeford.

Dr. O'Connor, having become president, appointed as the committee on Public Health and Legislation: Drs. J. D. Cochrane, Saco; D. E. Doloff, Biddeford, and L. E. Willard, Saco.

Dinner was served at Hotel Thatcher, 1-2 o'clock. At the afternoon session, Dr. H. L. Bartlett of Norway, president of the Maine Medical Association, was introduced and he congratulated the Society on the good attendance and the interest manifested by the members.

Dr. F. Y. Gilbert, Portland, editor of the Journal, was asked to speak, and he referred especially to necessary legislation in regard to the proper limitation and regulation of osteopathy.

Dr. Richard F. Chase, Portland, presented a paper: "Modern

Methods of Diagnosis in Digestive Diseases." The manner of imparting information and the successful way of eliciting free discussion, employed by Dr. Chase, made it a singularly profitable hour that was devoted to the subject.

A rising vote of thanks was extended to Dr. Chase. At this meeting there were present several who have rarely, or never before, attended any meeting of this Society. This is an encouraging fact, and we hope that more of the members will get the habit of frequent attendance.

Those present: Drs. H. L. Bartlett, Norway; R. F. Chase, F. Y. Gilbert, Portland; J. W. Gordon, Ogunquit; J. M. O'Connor, C. J. Emery, M. H. Ferguson, E. D. O'Neill, C. F. Kendall, D. E. Doloff, C. F. Traynor, L. A. Girard, A. C. Maynard, Biddeford; J. D. Cochran, J. D. Haley, C. E. Thompson, L. L. Powell, R. L. Maybury, Saco; H. L. Prescott, Kennebunkport; J. O. McCarrison, No. Berwick; C. E. Cook, South Berwick; C. W. Blagdon, P. S. Sullivan, Sanford; B. M. Moulton, A. S. Davis, Springvale; B. F. Wentworth, Scarboro; H. A. Owen, Bar Mills; W. H. Baker, W. Buxton; E. C. Cook, York; H. P. Ilsley, Limington; J. A. Randall, A. L. Jones, Old Orchard. Total, 32.

ARTHUR L. JONES, *County Editor.*

Correspondence.

Dear Doctor:—

We enclose herewith a provisional program of the Eleventh Annual Conference on Medical Education, Public Health and Legislation, to be held at the Congress Hotel, Chicago, Monday and Tuesday, February 15 and 16, 1915, under the auspices of the Council on Health and Public Instruction and the Council on Medical Education of the American Medical Association.

All State Licensing Boards, State Boards of Health, State Medical Societies, Associations of Universities and other organizations interested should have representatives present at this conference.

You are most cordially invited to be present and to participate in the discussions.

Very truly yours,

COUNCIL ON HEALTH AND PUBLIC INSTRUCTION,
FREDERICK R. GREEN, *Secretary.*

COUNCIL ON MEDICAL EDUCATION,
N. P. COLWELL, *Secretary.*

P. S.—On Wednesday, February 17th, the joint session of the Federation of State Medical Boards of the United States and the Association of American Medical Colleges will be held.

Necrology.

FRANK NEWTON BARKER.

After a long and tedious illness, interrupted by an operation which could not put a stop to the encroachments of his disease, Dr. Barker died Thursday night at 10.35, December 10, 1914, a little over 60 years of age. He was an able member of this association and the first President of the Oxford County Medical Society, over which he presided with geniality and skill.

Dr. Barker was born in Rumford, November 8, 1854, the son of Hazen Frost and Dorcas Hannah Barker, attended the local schools in Gray and Oxford, then followed the course at Bridgton Academy, and finally obtained his medical degree at the Medical School connected with the University of Vermont, in 1885. He practiced for a while at home, then obtained the position of Assistant Superintendent of the Hartford (Connecticut) hospital in 1888 and finally settled for life-long practice in Norway in 1889. He was a very careful and conscientious practitioner of medicine for about fifteen years, when his health gradually failed and after a long attack of illness he was found to have a tuberculous kidney. He rallied somewhat after a successful operation for its removal and was able to do a light practice mostly at home and without any long rides. After a few months he had another serious relapse and finally died from tubercular meningitis.

He belonged to many clubs and societies, was a member of the American Medical Association, and was a consulting surgeon to the Central Maine Hospital.

The only paper mentioned as written during his career was one on "Erysipelas" characterized as concise and clearly expressed.

Dr. Barker married, December 19, 1885, Miss Gertrude Holden of Oxford, by whom and by three promising children, he is survived.

J. A. S.

JACOB LYMAN HERR.

Dr. Herr, a very well known member of the profession and of the Maine Medical Association, as well as a highly respected citizen of Westbrook, died suddenly Wednesday, December 22, 1914. He had suffered considerably from general rheumatism for some time before, but was apparently as well as usual on Tuesday, when, during the night,

he had a serious attack of pain, called for some sedative remedy, but before it could be administered to him to obtain sufficient results, he was dead.

He was the son of Stephen and Hannah Adams Horr, and was born at Waterford, December 19, 1841. He got a common school education in his native place, studied medicine with a local physician, and obtained his medical degree at the Medical School of Maine in 1869. He practiced with good success in Oxford for four years, and then moved to the larger circle of Westbrook in 1873, and had thus at his death completed his forty-first year of practice in that manufacturing and busy city.

Dr. Horr dipped into politics considerably at one time and was twice elected mayor of the city. He also served several years as the city physician and did good work for the public health when so occupied. He was not inclined to surgery at all, but was a steady going medical adviser with plenty of self-reliance, and well balanced skill in the every day run of medical practice and household emergencies. He was a precise attendant at the meetings of our Association, read at one time a capable and exceptionally meritorious paper on "Pulmonary Oedema," and often took part in the medical debates before the Association.

Personally, Dr. Horr was a large man, heavily set upon the ground, but very genial and agreeable, and a capital conversationalist, if you happened to hit upon the topics in which he was interested. He was twice married and is survived by his widow, who was Miss Addie Babb of Portland.

J. A. S.

Ankylosis.

An experimental study undertaken for the purpose of investigating the changes that take place in the joint structures in the process of ankylosis is reported by N. Allison and B. Brooks, St. Louis (Journal A. M. A., Jan. 30, 1915). The knee-joints of dogs were used in the experiments, with careful antiseptic technic, the animals being completely anesthetized and care taken to make them as comfortable as possible after the operation. Four experimental methods were used, namely, partial excision of joints; destruction of joint cartilage; injury of same, and direct infection of the joints. In the experiments in which the cartilage was removed by operation or the joint partially excised, bony ankylosis is a slowly developing process. 1. There is union by granulation tissue; 2. There is union by dense fibrous tissue, and, 3. There is metaplasia of fibrous tissue into cartilage and a direct transformation into bone. The shortest time for complete ankylosis in the experiments was 180 days. The long duration of the fibrous stage indicates that any method of arthroplasty should seek to prevent fibrous ankylosis rather than bony ankylosis and that introduction of irritating substances into the joint should be avoided. The experiments in which the joint cavity was infected and those in which a slight injury was done the cartilage seem to indicate that any inflammatory process in the joint, severe enough to cause granulation tissue, will destroy the joint cartilages. The cartilage is absorbed at its margin by granulation tissue arising from the synovial membrane and at its base by granulation tissue from the bone marrow.

Personal News and Notes.

Dr. Hiram Hunt of Greenville, has gone to Dayton Beach, Florida, for the remainder of the winter.


Drs. James McFadyen, L. C. Ford, A. E. Schriver of Milo, J. L. Potter, R. H. Marsh, G. E. Dore of Guilford, F. J. Pritham of Greenville, H. L. Varney of Monson, and Richard F. Chase of Portland, were in Dover, January 21st, attending the meeting of the Piscataquis County Medical Society.

Dr. C. B. Sylvester of Harrison has returned from his annual trip to Johns Hopkins and some of the New York hospitals, where he has been attending clinics.

Dr. B. F. Bradbury of Norway, who has been stationed in Kosel, Germany, has been called home by the sickness of his wife, who is at St. Barnabas' Hospital, Portland.


Dr. Harry A. Weymouth of Saco, who was appointed district deputy collector of internal revenue of the Lewiston district with head quarters in that city, has been notified by Seth W. Jones of Portsmouth, N. H., of his transfer to Portland. This is pleasing to Dr. Weymouth, who hereafter will collect the revenue in the counties of Cumberland, Knox, Lincoln, Sagadahoc and York. Portland will be his headquarters but he will live in Saco as usual.

The set of buildings in Buxton occupied by Dr. A. G. Wiley and owned by the estate of the late Dr. A. K. P. Meserve, caught fire about noon Tuesday, February 2, and the loss was total.



Dr. C. C. Hall of Dover, a general practitioner in Piscataquis County for 35 years, died October 19, 1914, at the age of 61. Dr. Hall was a member of the county society, the Maine Medical Association and the American Medical Association.

Dr. Ernest W. Russell, a member of the American Medical Association and of the Maine Medical Association, died at his home in Lewiston, aged 57 years.



Notices.

PHILIPPINE CIVIL-SERVICE EXAMINATION.

March 2, 1915.

Medical Inspector and Surgeon (Male), \$3,000.

The United States Civil Service Commission announces an open competitive examination for medical inspector and surgeon, for men only. From the register of eligibles resulting from this examination certification will be made to fill a vacancy in this position in the Philippine Service, at a salary of \$3,000 a year, and vacancies as they may occur in positions requiring similar qualifications, unless it is found to be in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

The duties of the position will be to take charge of the health station at Manila or in the Provinces, as the Philippine Director of Health may require, and to attend to such surgical work as may be assigned in the Philippine General Hospital, probably the best institution of its kind in the Eastern Hemisphere, with 350 beds and an equipment comparing favorably with that of any hospital in the world. The new conditions, and the as yet undescribed diseases, that are constantly encountered furnish a wide field to one interested in his profession. As a further aid to his work the Bureau of Science, which is on the hospital grounds, has one of the largest and most favorably known research laboratories in existence.

Specialist in Mental and Nervous Diseases (Male), \$3,500.

The United States Civil Service Commission announces an open competitive examination for specialist in mental and nervous diseases, for men only. From the register of eligibles resulting from this examination certification will be made to fill a vacancy in this position in the Philippine Service at a salary of \$3,500 a year, with subsistence, quarters, and laundry, and vacancies as they may occur in positions requiring similar qualifications, unless it is found to be in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

The duties of this position will be to organize and administer an insane asylum to be located on an estate of 600 acres, to exercise general supervision over the farm work, and to train a staff of nurses and attendants for this special work.

Bacteriologist and Pathologist (Male), \$2,000-\$2,500.

The United States Civil Service Commission announces an open competitive examination for bacteriologist and pathologist for men only. From the register of eligibles resulting from this examination certification will be made to fill vacancies in this position, Bureau of Science, Manila, P. I., at salaries ranging from \$2,000 to \$2,500 a year, and vacancies as they may occur in positions requiring similar qualifications, unless it is found to be in the interest of the service to fill any vacancy by reinstatement, transfer or promotion.

The duties of this position will be to carry on research work in the laboratories of the Bureau of Science, combined with the regular routine bacteriological and pathological work.

Persons who desire these examinations should at once apply for Forms B. I. A. 2 and 2095, stating the title of the examination for which the forms are desired, to the United States Civil Service Commission, Washington, D. C., or the secretary of the United States Civil Service Board, post office, Boston, Mass.

Advertisers' Notes.

The Scientific Treatment of Abdominal Ptosis.

The importance of abdominal support is being appreciated today as never before. A relaxed and sagging abdominal wall is no longer considered a harmless sequence of advancing years, a simple sign of over-indulgence and lack of proper exercise. To the contrary, it is known to be a real pathologic condition attended by actual tissue changes and derangements of the local circulation that have a far reaching influence on the whole body. More than this the effect on the nerves, those of the splanchnic area particularly, is such that a host of reflex ills may be expected sooner or later.

Fortunately, intelligent study of abdominal support has shown ways of successfully counteracting the effects of weakening of the abdominal muscles, and in this connection due recognition must be given to the work of Dr. Katherine L. Storm of Philadelphia. Dr. Storm was a pioneer in the scientific investigation of weakened and relaxed abdominal muscles, and the consequences therefrom. Dr. Storm's Abdominal Binder was the logical outcome of these studies and the way the profession have adopted this binder points conclusively to the prompt appreciation of its practical utility. Abdominal belts and supports have been devised in endless array, but until the Storm Binder became available, constriction and compression were usually mistaken for true upward support. As a result the average abdominal belt was not only an instrument of torment, but nearly if not quite valueless for the purposes for which it was intended. With the Storm Binder all these evils have been corrected and instead of mere compression there is afforded a true uplift, with the lines of support up-

ward and backward as they should be. Thus the Storm Binder easily performs the service required of it, and so comfortably at all times that the wearer after a few hours, becomes unconscious of its presence. So efficient and uniformly beneficial has it proven that it has placed the treatment of abdominal sagging or ptosis on a new and scientific foundation. The Storm Binder, therefore, deserves the hearty support of medical men since it represents progress in a needed direction and assures the proper and comfortable attainment of the results sought. — American Medicine, October, 1914.

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MARCH, 1915.

No. 8

PELLAGRA.

By H. L. BARTLETT, M. D., NORWAY, ME.

Mr. President and Members of the Association:

It was with considerable trepidation and hesitancy that I finally yielded to the entreaties of your program committee, and promised to endeavor to throw light upon this very important subject of Pellagra — important to the profession of Maine, for this disease is now with us and we must be prepared to cope with it.

I can say nothing that you cannot find better said in the current journals and recent text books, but I sincerely hope to be able to put the physicians of Maine on their guard, by calling their attention to the fact that pellagra, which until very recently, we had supposed to be incident only to the States in the South and Middle West, is now cropping out in our midst.

It has fallen to me to have had five cases under my care during the past few years — four of these five during the past year and two of them under treatment at the present time.

The history of pellagra is somewhat clouded in mystery. It seems to have been recognized in Spain as early as 1735; in Italy about 1771, and in 1784 Joseph II of Austria established a hospital for pellagrins. In the early part of the nineteenth century, the disease seemed very prevalent over France, Spain, Italy and Roumania. Our own country apparently remained free from this malady until some time past the middle of the last century. According to Past Assistant Surgeon Lavinder, of the Public Health and Marine Hospital Ser-

*Read before the 62nd session of the Maine Medical Association at Portland, Me., June 10, 1914.

vice, the early cases in this country were reported by Gray of New York, and Tyler of Massachusetts in 1864. From that year, up to about 1908, sporadic cases appeared in various parts of the country, mostly in the Southern States. Since 1908, pellagra has spread very rapidly and aroused a great deal of interest in medical circles.

As to the distribution of pellagra. I will quote from Lavinder: "Pellagra is now known to be endemic in various parts of the eastern and western hemispheres. It is highly probable that the real geographic distribution of pellagra is unknown, but the disease has been reported from parts of Italy, Roumania, Austria-Hungary, Spain, France and other places in southern Europe; from Asia Minor, India and the Philippine Islands; also from lower Egypt and some other places in North as well as South Africa. It is said to occur * * * in parts of South America and possibly in Central America. It is also found in the West Indies, Mexico and the United States."

Its distribution in the United States, to again quote Lavinder, "seems to be in the southeastern States—in a general way those which lie south of the Potomac and Ohio and east of the Mississippi rivers with Louisiana and Texas included." Lavinder goes on to say that the "malady is undoubtedly increasing in numbers and spreading into new territory * * * and the present situation must be looked upon with grave concern."

The etiology of the disease is as obscure as the history. For a long time the theory of food poisoning was generally accepted as the causative factor, and Indian corn as the article of diet that caused the poisoning. Among the earlier observers and writers, Casel advanced the Indian corn theory, and Marzari in 1810, going into the matter a little more fully, advanced the idea "that corn caused pellagra by its deficiency in certain nutritive principles," and later the idea that corn that had become heated and mouldy was the causative factor, was put forth by Balardini. The supporters of this theory, according to Lavinder, advanced the following:

"First: The disease appeared for the first time in Europe after the introduction of maize, probably from America, and followed everywhere the extension of the cultivation of this new grain and its adoption as an article of diet.

"Second: Pellagra is found endemic only in countries where maize is extensively used as an article of diet.

"Third: Pellagra diminishes or disappears among individuals or groups of individuals whenever maize is eliminated from their dietary. On the other hand, it is likely to appear among people who adopt this cereal as a large part of their food supply."

The theory of Marzari that corn produced pellagra because of its deficiency in proper nutritive matter, seems to be no longer held, because careful analyses show it to be possessed of high nutritive qualities and easy of assimilation. The idea that good corn contains a toxic substance which causes pellagra, has been practically eliminated because of the absence of pellagra in certain localities where corn has been used as an article of food over long periods of time, and also because pellagra has been found in individuals who had not eaten corn in any form for years.

The spoiled corn idea, the toxico-chemical theory, has had many supporters. To quote further from Lavinder: "It was established through the admirable labors of Lombroso, who had been its great advocate and exponent and is perhaps today the most popular of all the various phases of the maize theory. This is the view accepted by the Italian government in its extensive prophylactic measures. It is not without critics and antagonists, however, and Lombroso's experimental work and conclusions have been seriously called in question by many able students of the disease."

During the past two or three years, the idea of food poisoning has been discredited somewhat, and the infectious theory of the disease has advanced very rapidly. In 1905, Sambon suggested that pellagra might be a parasitic disease transmitted by a blood-sucking insect, but threw no light on the nature of the parasite.

The whole matter of the etiology of pellagra, I believe, is best found in the summary of the conclusions of the First Progress Report of Thompson McFadden Commission of the New York Post-Graduate Medical School and Hospital, and is this:

"First: The supposition that the ingestion of good or spoiled maize is the essential cause of pellagra, is not supported by our study.

"Second: Pellagra is in all probability a specific infectious disease communicable from person to person by means at present unknown.

"Third: We have discovered no evidence incriminating flies of the genus *Simulium* in the causation of pellagra, except their universal distribution throughout the area studied. If it is distributed by a blood-sucking insect, *Stomoxys Calcitrans* would appear to be the most probable.

"Fourth: We are inclined to regard intimate association in the household and the contamination of food with the excretion of pellagrins as possible modes of distribution of the disease.

"Fifth: No specific cause of pellagra has been recognized."

Predisposing causes are age, sex, race, occupation, previous health, alcoholism, hygienic surroundings. As to age, statistics show the larger number of cases between 20 and 40. In my own cases, two were

above 50; one between 40 and 50; one between 30 and 40 and one between 5 and 10.

In the matter of sex, in the United States the larger number are among females. Four of my cases were females; one male.

Race seems to make no great difference in the incidence of the disease, except in the Southern States the negro female is attacked more frequently.

Occupation — The Thompson McFadden Commission report is: "Excessive prevalence of pellagra among women employed in housework. The excessive prevalence of pellagra in mill village population is found largely among women and children at home during the day. Among mill workers the rate of prevalence in the two sexes appears to be about equal."

In my own cases three did housework exclusively; one worked in a shoe factory during the day and did her housework morning and night. The other, a child at home, except when in school.

Those who are addicted to excessive use of alcohol, who live under poor hygienic surroundings, and those whose physical condition has been weakened by previous illness are very likely to fall a prey to this disease.

As to the contagiousness of pellagra little can be said with any degree of positiveness until its true etiology is known. In the opinion of Dr. E. H. Martin of Hot Springs, "pellagra is an infectious disease essentially of the cerebro-spinal system."

The principal symptoms of pellagra may be divided into three classes: Gastro-intestinal, skin and nervous, and each during the course of the disease may play a very important part.

In the prodromal stage the patient may complain of neuralgic-like pains in the extremities and various parts of the body. There may be burning sensations in mouth and stomach, loss of appetite, weakness of the lower extremities and vertigo.

In the first stage, the gastro-intestinal symptoms are very pronounced. The lips, tongue and whole buccal cavity become intensely red, heat and burning increased, the appetite is lost, vomiting may occur and diarrhoea is frequent. Muscular weakness is marked, dizziness is common. (Temperature usually normal.) Insomnia occurs; neuralgic pains are increased; cramp-like pains in extremities; nervous depression and appearance of dermatitis. The dermatitis is characteristic of the disease. It usually appears first on the backs of the hands. It is symmetrical and practically always on the uncovered parts, back of hands, forearm, face, back of neck and occasionally on the upper part of chest. I know of no way to make the character of the eruption plain to you except to quote from Public Health Bulletin No. 48, the words of Past Assistant Surgeon Lavinder:

“(2) The eruption appears suddenly, and its genesis is not necessarily connected with atmospheric or solar influences.

“(3) Its limitations are peculiarly typical—sharp with red border—and as it develops it shows a more or less broad zone of scaling with a peculiar color.

“(4) The eruption does not reach its height for many days or weeks, and requires a still longer time for its retrogression (several weeks.) First there occurs loss of rosy border, then the center gradually fades, while the scaly, crusty zone remains for a long time the seat of the receding process. The changes in the central zone vary with location, but are always characteristic of an erythema.

“(5) By its external characteristics the erythema is strongly allied to the so-called hyperkeratosis. Still, especially on the dorsal surfaces of the hands, the erythema may show enormous exudations,

“(6) The erythema is nearly always remarkably symmetrical, and shows certain places of predilection—first, backs of hands (“glove”), more rarely backs of feet (“boot”), still more rarely the face (“mask”), and finally the neck (Casal’s “neckband” and “cravat”); in the second place, the female genitalia and perineal region. It is also seen in symmetrical, isolated situations, as elbows, knees, axillary folds.

“(7) Some time after its appearance the erythema shows the typical, dirty gray-brown color of changes peculiar to hyperkeratosis. At the same time the bright red of the erythema may be seen through this, and gives to the whole a kind of bronze coloring which is especially sharp during the retrogression of the process.

“(8) In an individual it appears as a rule only once annually, generally, but not necessarily, in Springtime. The following year it recurs, and finally leads to atrophic changes, especially on the backs of the hands.”

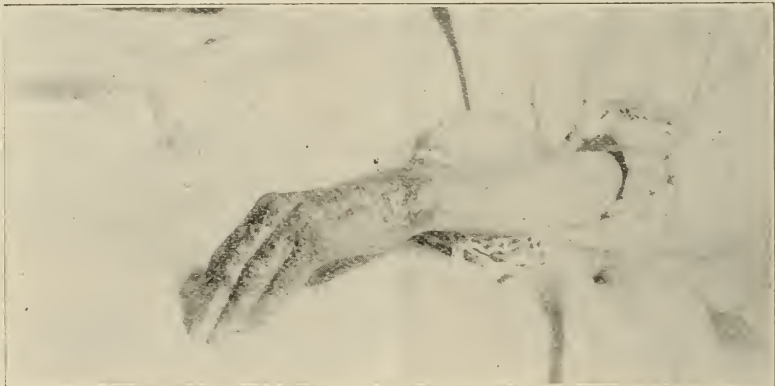
In the second stage of the disease all the symptoms of the first stage are markedly increased, and the cerebro-spinal disturbances are very pronounced. Among the motor disturbances may be mentioned tremor of the tongue, head and arms, great muscular weakness and a tottering, spastic gait. Among sensory disturbances we find patients complaining of burning hands and feet, neuralgic pains in the head and tenderness on pressure over the spine. The tendon reflexes are usually increased but may be absent. Phychic disturbances are present in nearly all cases, some patients suffering from extreme excitability, others from profound depression and quite a percentage develop the so-called pellagrous insanity, and many of this latter class show a marked suicidal tendency. In the third stage, which is the terminal one, it is marked by cachexia, anemia, marasmus, sometimes paralysis

of bladder, an obstinate and practically uncontrollable diarrhoea, and usually heart failure and exhaustion close the scene.

The duration of the disease is very uncertain. It seems to be a chronic malady with acute exacerbations, usually in the Spring months but occasionally in the Fall. It is said to develop with a great deal more rapidity in the United States than in Europe. Among the cases I have seen, I am satisfied that two of them had the disease extending over several years.

In making the diagnosis of pellagra, there are the cardinal phenomena to be remembered, digestive disturbances, nervous disturbances and the dermatitis. With these three abnormal conditions in mind, anyone who is familiar with current literature ought to make the diagnosis in a well marked case. Cases without dermatitis offer difficulties in early diagnosis.

The prognosis of pellagra is certainly serious. The mortality in the United States, according to Lavinder, "doubtless exceeds 25%."



Like any other condition, cases seen early and treated intelligently, offer the most hopeful outlook. Untreated, the disease steadily advances, as all chronic maladies do. If the central nervous system becomes involved, if mental symptoms occur, if the patient carries a temperature, if emaciation progresses and diarrhoea becomes uncontrollable, death frequently follows. Yet, a patient with all the symptoms will occasionally recover.

My own experience is too limited to give you any facts relative to the recrudescence of the disease, but good authorities are of the opinion that this does occur sooner or later, and that the patient should be watched carefully for a year or two, if apparent recovery has taken place.

In caring for a patient with pellagra, prophylactic measures should be taken into account regardless of the fact that our knowledge of its

etiology is obscure. Whether corn, good or bad, plays a part in the causation of this disease, with a case in hand, it would seem wise for the present to eliminate it from the diet. Looking at it as an infection, it would certainly be our duty to instruct the family to have the sick room properly screened, to guard against contamination of food, and to see that the excreta of the patient are taken care of in such a way that no danger may come from this source.

As to medicinal treatment, only a little can be said. Among the physicians who have had a large experience with pellagra, arsenic, in some form, is the favorite remedy.

Martin, of Hot Springs, has treated over 3,000 cases, and he depends on salvarsan given every eight or ten days until no reaction follows, the reaction being a rise in temperature and several watery or gaseous stools, which usually subsides within twelve hours. If the patient is so situated that salvarsan cannot be given regularly, he recommends soamin (sodium arsanilate) be given in three or four grain doses hypodermatically every two days. Fowler's solution may be used; also arsenious acid. Mizell of Atlanta reports good results with sulphide of calcium in one-half grain doses before meals. He prescribes the one-sixth grain pill, giving three at a dose; never uses the tablet, claiming they are worthless.

Other treatment is merely symptomatic; control the diarrhœa, relieve the vomiting, keep patient in bed in all severe cases, promote sleep with veronal-trional or whatever seems best in the particular case.

The erythema, especially of the hands, seems to subside more quickly if kept protected from the light by sterile gauze held in place by bandaging.

The diet should be abundant and easy of digestion and meats should be included.

DISCUSSION OF DR. BARTLETT'S PAPER.

THE PRESIDENT: I will ask Dr. Gehring of Portland to open the discussion of this paper.

DR. GEHRING: Mr. President, ladies and gentlemen:—The first and salient lesson, it seems to me, to be drawn from Dr. Bartlett's paper is contained in the closing words of the first paragraph, namely: "Pellagra is with us in Maine, and we must be prepared to cope with it." He tells us that the experience of those who have seen a large number of cases points to an infection of some kind as the causative agent of the disease, and says that it is primarily an infection of the nervous system, accompanied by trophic changes in the gastrointestinal tract and skin. In reading and studying the report of the Thompson McFadden Pellagra Commission, it appears to me, also, that pellagra may be termed a non-leukocytic disease when uncomplicated; that is to say, one does not find the normal number of leukocytes per cubic millimeter upon examination of blood. In fact, reports would seem to indicate that there is a condition of leukopenia.

Another point which the essayist brings out, is that we apparently have for this condition a specific. It seems strange to talk about a specific, when one does not know the etiology of the disease; but you will recall that we had specifics for syphilis and malaria before the spirochete of syphilis or the plasmodium of malaria were discovered. We have, then, a specific for pellagra which is arsenic. Martin of Hot Springs and Shoemaker of California have reported success in the treatment of the disease based upon a large series of cases. Each has given between three and four thousand doses of arsenic for the condition, and they claim that anything which produces a leukocytosis in the pellagrin alleviates or cures the disease. A surgical operation may do this, the use of colloidal copper, or the introduction of arsenic, either as salvarsan or soamin; the cure being brought about by the destruction of the organism, whatever it is. The reaction consists in elevation of temperature, nausea, and the production of watery, gaseous stools of which Dr. Bartlett has spoken. They claim, further, that unless one is either a syphilitic or a pellagrin, if the technique of the administration of arsenic be correct, no reaction will follow upon its introduction, and that the cure consists in introducing arsenic in small doses at stated intervals until such reaction fails to appear. In this connection I received, day before yesterday, a letter from Dr. Shoemaker of California, who lived for many years in South Carolina, where he studied pellagra. He writes, in reply to questions which I asked concerning one of Dr. Bartlett's cases, all of which I have had the pleasure of seeing through his courtesy, as follows:

"Upon reading your paper and letter, I have the following suggestions to make regarding your case. 1st. I should change the marked acidity of the stools by rectal irrigations with a mild alkaline solution. I should recommend the use of soamin in 3 grain doses intramuscularly daily, or every other day, until 100 grains are given. It might be well to remit at 25 or 50 grains for a day or two. Small doses of salvarsan frequently repeated seem to yield better results than a large dose. One occasionally breaks down what little immunity is left by large doses of arsenic. I have had pellagra cases gain one and one-half pounds a day on soamin, and, again, several cases made what appeared to be a complete recovery upon two injections of salvarsan. In my experience, the moist eczematous cases grow progressively worse.

I feel further convinced that pellagra is a 'fly-born disease.' Just the common house fly eats the diarrhæal discharges and brings them back to the table for other members of the family to become affected. Do you want to know how you got pellagra in Maine? Well, I shall tell you. Some of my patients, as early as 1909, summered in Maine, and the flies did the rest. Anyone studying the charts of the Thompson McFadden Commission will swear to this.

I just remember treating an old native who lived at the head waters of the Millinocket stream. This old 'cruiser' polluted this stream for years with an obstinate diarrhæal discharge. He is now dead. I saw him in 1907 and 8, or 1906 and 7, I am not certain which."

It would seem, then, that if arsenic in some form is a specific, we ought not to look upon pellagra as a hopeless disease, but one that is really curable.

THE PRESIDENT: This paper is now open for general discussion.

DR. GORDON: Mr. President: We had three cases last year at the Augusta State Hospital. Two of them have recovered and one is dead. The two cases that recovered were not excessively bad. One was quite marked and the other was a moderate case, but with extensive involvement of the skin. The case that died had the diarrhœa, and seemed to be exhausted almost entirely from

that. These cases, of course, were of insane people. Dr. Miller called my attention to a case one day, and said: "I believe we have a case of pellagra." On examination there was no question about it whatever. I had never seen any at that time; neither had Dr. Miller. However, the physical conditions were so absolutely present that there was no question about it. Of course, in each of those cases the nervous symptoms were strongly marked. Of the two that recovered, one of them went home before I left the hospital, and the other Dr. Miller told me afterwards, had practically recovered before being sent home. The treatment there, was wholly arsenic. I think in one case arsenic and iron were used, but, ordinarily, Fowler's solution was found to be about the best thing where the stomach was not involved.

I congratulate the Association on so good a paper as that of Dr. Bartlett's. The subject has, I think, never been introduced to the Society before; and it is well to have a paper which contains not only his own views, as manifested by his own cases, but quotations as given by him from well known authorities. We must be prepared for everything that arises in medicine. Maine is by no means exempt, and we are liable to have just as many cases here as any State that I know of, except the southern and southwestern. I am afraid we are not so free from alcohol as to be able to guarantee that we will not have this as a matter for consideration.

DR. YOUNG: Mr. President: I saw the three cases in the Augusta Hospital, and there is a possibility that there was another case; but that is merely an assumption on my part. I was notified of a case in the town of Burnham about a year ago by Dr. Shaw of Clinton, and he invited Dr. Miller, who had charge of the Augusta State Hospital at that time, to visit the case with me the following Monday; but before Monday came, the patient had died. I received notification over the telephone of the death of the patient, and I went up to view the body. There was an unmistakable eruption of pellagra on the hands, wrists and forearms, although, of course, in the body after death the eruption had faded, and, so far as the color was concerned, was not so typical. I believe there has also been one case in the Bangor State Hospital. I was called over a little beyond Weeks' Mills last year to see a case—a quite urgent appeal. It was a man past middle life. The case was far advanced, and it was apparent that he could live but a very short time, and he did live but a little while. A lady also came from over in that direction last year to see me, called at the office with a well marked case. She is living now. I had a letter from her a little while ago desiring to visit me again, and she probably will come over before long. There was another case which I did not see, but which I am quite sure was a case of pellagra, from the description I have had of it, from the medical attendant in the town of Woolwich. I was hoping to see this case, but the man moved away from there. It would be a very good thing if the physicians would report the cases as they occur. There should be a record kept of them.

DR. GORDON: I forgot to say, Mr. Chairman, that the three cases at Augusta were all women. And since Dr. Young has spoken about the case at Bangor, I now recall that at the last meeting of the Board of Trustees at Bangor, last December, Dr. Hills called our attention to a case there. I had forgotten that for the moment.

THE PRESIDENT: If no one else wishes to discuss this paper, I will ask Dr. Bartlett if he cares to say anything in closing the discussion.

DR. BARTLETT: There is nothing more that I care to say.

Drugs and Preparations within the Opium and Coca Law.

*** ADVANCE PROOF.**

NOTICE — This List is NOT complete. It contains all items reported to us by the manufacturers up to February 17th. In the **March** issue of "The Pharmaceutical Era," we shall print the list as completed to that date, but further additions are sure to come in later.

We are mailing this **advance proof** to the entire drug trade, to assist them in preparing their **Inventories** on March 1st. In this connection we want to suggest to Druggists that they take this matter up with their Physicians, Dentists and Veterinary Surgeons, and **help** them with their Inventories, for we find that very few of these professional men have any comprehension of their obligations under this new law.

When this List of Restricted Preparations is completed we shall reprint the entire list in bound **Pocket Form** as a Supplement to the "Era Price List." If your subscription to "The Pharmaceutical Era" includes the "Era Price List" we will send you a **free copy** of this Pocket List (See Combination Subscription Rates). We also supply 1 copy of this List with each copy of our Registers. Additional copies of Pocket List are 25 cents each.

Please call our attention at once to any errors or omissions that you notice in this list.

D. O. HAYNES & CO., Publishers.

No. 3 Park Place, NEW YORK.

EXEMPTIONS.

This law applies to the production, importation, manufacture, compounding, sale, dispensing, or giving away of Opium or Coca Leaves, their salts, derivatives or preparations.

It does NOT apply to preparations which contain **two (2) grains or less of Opium**, or **1/4 grain or less of Morphia**, or **1/8 grain or less of Heroin**, or **1 grain or less of Codeine**, or any salt or derivative of any of them in **one fluid ounce**; or if a solid, or semi-solid preparation, in **one avoirdupois ounce**.

Neither does it apply to **Liniments, Ointments** or other preparations which are prepared for **external use only**, *except* Liniments and other preparations which contain **Cocaine** or any of its salts (alpha or beta eucaine) or any of their salts or any synthetic substitute for them.

Novocaine. The agents for this preparation advise us that this is a definite chemical compound, totally non-related to cocaine and resembles it only in its local anesthetic powers, and consequently is not within the scope of this new Opium and Coca law.

Fahrney's Teething Syrup was printed in a recent list as coming within this law, but the proprietors, D. Fahrney & Son, inform us that this is an error and that this preparation contains nothing to bring its sale within the restrictions of this law.

Manufacturers are invited to notify us of any conspicuous exemptions in their preparations or products, for publication with our list of these restricted goods.

*Advance Proof from March Issue of The Pharmaceutical Era.

OFFICIAL PREPARATIONS EXEMPTED.

The following official preparations contain opium, morphine, codeine, etc., but not in sufficient quantity to require a physician's prescription or the special order blank, when purchased or sold or when dispensed by a physician or a pharmacist.

U. S. P. PREPARATIONS

Camphorated Tincture of Opium
1.9 grains opium in fl. ounce
Compound Mixture of Glycyrrhiza
0.218 grain in fl. ounce
Opium Plaster

N. F. PREPARATIONS

Acid Camphor Mixture
0.54 grain opium in fl. ounce
Antiperiodic Tincture (Warburg's Tinc.)
0.114 grain opium in fl. ounce
Carminative Mixture—Dalby's
1- $\frac{1}{2}$ grains opium in fl. ounce
Compound Elixir of Tar
0.16 grain morphine in fl. ounce
Compound Liniment Opium
Compound Syrup of Morphine
0.25 grain in fl. ounce
Compound Syrup of White Pine
0.23 grain morphine in fl. ounce
Elixir of Terpin Hydrate with Codeine
1 grain codeine in fl. ounce
Jackson's Pectoral or Cough Syrup
0.25 grain morphine hyd'chld in fl. ounce
Mixture of Sassafras and Opium
1.6 grain opium in fl. ounce
Pectoral Tincture
2 grains opium in fl. ounce
Stokes' Expectorant
0.319 grain opium in fl. ounce
Mixture of Magnesia and Asafetida
(Dewees' Carminative)
0.456 grain opium in fl. ounce

OFFICIAL DRUGS AND PREPARATIONS

Restricted by the Opium and Coca Law

Apomorphine Hydrochloride, U.S.P.
Coca (Leaves) U. S. P.
Cocaine, U. S. P.
Cocaine Hydrochloride, U. S. P.
Codeine, U. S. P.
Codeine Phosphate, U. S. P.
Codeine Sulphate, U. S. P.
Elixir Celery Compound, N. F.
Elixir Chloroform Compound, N. F.
Elixir Coca, N. F.
Elixir Coca and Guarana, N. F.
Elixir Terpin Hydrate with Heroin, N.F.
Extract Opium, U.S.P.
Fluidextract Coca, U.S.P.
Mixture Chloroform and Cannabis Indica Compound, N.F.
Mixture Diarrhea, No. 1, (Sun Cholera) N.F.

Mixture Diarrhea, No. 2, (Squibb) N.F.
Mixture Diarrhea, No. 3 ((Loomis N.F.
Mixture Diarrhea, No. 4 (Thielmann) N.F.
Mixture Diarrhea, No. 5 (Velpau) N.F.
Morphine, U.S.P.
Morphine Acetate, U.S.P.
Morphine Hydrochloride, U.S.P.
Morphine Sulphate, U.S.P.
Oleate Cocaine, U.S.P.
Opium, U.S.P.
Opium, denarcotized, U.S.P.
Opium, granulated, U.S.P.
Opium, powdered, U.S.P.
Pencils, Cocaine (Unna) N.F.
Pill Anti-Neuralgie, No. 1 (Gross) N.F.
Pill Anti-Neuralgie, No. 2 (Brown-Se-guard) N.F.
Pill Opium, U.S.P.
Pill Opium and Camphor, N.F.
Pill Opium and Lead, N.F.
Powder, Anti-Catarrh (snuff) N.F.
Powder, Chalk Aromatic with Opium, N.F.
Powder, Ipecac and Opium (Dover), U.S.P.
Powder, Kino Compound, N.F.
Powder Morphine Compound (Tully), U.S.P.
Solution Morphine Citrate, N.F.
Solution Morphine, Hypodermic (Magendie) N.F.
Syrup Codeine, N.F.
Syrup Ipecac and Opium (Dover) N.F.
Syrup Morphine Sulphate, N.F.
Syrup Poppy, N.F.
Tincture Ipecac and Opium, U.S.P.
Tincture Kino Compound, N.F.
Tincture Opium, U.S.P.
Tincture Opium, deodorized, U.S.P.
Tincture Poppy, N.F.
Troches Glycyrrhiza and Opium, U.S.P.
Troches Morphine and Ipecac, (U.S.P. 18.00)
Vinegar Opium, U.S.P.
Wine Coca, U.S.P.
Wine Coca, Aromatic, N.F.
Wine Opium, U.S.P.

DRUGS AND CHEMICALS

Acid Meconic
Antispasmin
Apocodeine Alkaloid
Hydrochloride
Apomorphine Muriate Amorphous
Hydrochloride, U.S.P.
Sulphate
Beta-Eucaine
Benzoyl Ecgonine
Coca Leaves
Cocaine Alkaloid, U.S.P.
" Borate
" Carbolate
" Citrate
" Hydrobromide
" Hydrochloride

Cocaine Lactate	Narceine, Alkaloid
“ Nitrate	“ Acetate
“ Nitrite	“ Hydrobromide
“ Oleate	“ Hydrochloride
“ Phenate	“ Meconate
“ Salicylate	“ Nitrate
“ Sulphate	“ Salicylate
“ Tartrate	“ Sulphate
Codeine Alkaloid, U.S.P.	“ Valerianate
“ Acetate	Narcotine, Alkaloid
“ Citrate	“ Hydrochloride
“ Hydrobromide	“ Sulphate
“ Hydriodide	Opium, Gum U.S.P.
“ Hydrochloride	“ Deodorized U.S.P. Denarcotized
“ Nitrate	“ Granulated U.S.P.
“ Phosphate	“ Extract Powder U.S.P.
“ Salicylate	“ Powder U.S.P.
“ Sulphate	“ Tincture U.S.P.
“ Valerianate	“ Vinegar U.S.P.
Codeonol	“ Wine U.S.P.
Cotarnine Hydrochloride	Papaverine, Alkaloid
Diacetylmorphine Alkaloid	“ Hydrochloride
“ Hydrochloride	“ Nitrate
Dover Powder	“ Phosphate
Ecgonine	“ Sulphate
“ Hydrochloride	Peronin
Ethylidene Chloride	Protopine
Ethylmorphine Hydrochloride (Dionin)	Stypticin (Cotarnine Hydrochloride)
“ Hydriodide	Styptol (Cotarnine Phthalate)
“ Eucain	Thebaine Hydrochloride
“ Acetate	“ Tartrate
“ Hydrochloride	Tropacocaine Hydrochloride
“ Lactate	
Eucodine	AMPOULES
Gregory Salt	Clin's Ampoules—see list E. Fougere & Co.
Heroin	Cocaine Hydrochloride (Lilly)
“ Hydrochloride	Codrenin R “C” (P. D. & C.)
Ipecac and Opium Powder U.S.P.	Eudrenin R “B” (P. D. & C.)
Morphine, Alkaloid U.S.P.	Morphine and Atropine, all strengths (Lilly) (P. D. & C.)
“ Acetate U.S.P.	Morphine and Hyoscyne (Lilly) (P. D. & Co.)
“ Anisate	Morphine Sulph., all strengths (Lilly)
“ Arsenate	
“ Benzoate	CAPSULES
“ Bimeconate solution	Bronchial No. 1 (Lilly)
“ Borate	
“ Camphorate	CONFECTIONS
“ Citrate	Opium
“ Diacetyl (Heroin)	Theriac (H. B. & W.)
“ Hydrochloride	
“ Ferrocyanide	CORDIALS
“ Formate	Calisaya, Ferrated (Lilly)
“ Hydriodide	Coca
“ Hydrobromide	Celery Comp., (S. & D.)
“ Hydrochloride U.S.P.	Diarrhea (Milliken)
“ Hypophosphite	Kaol Comp., (Norwich)
“ Lactate	
“ Meconate	ELIXIRS
“ Nitrate	Ammonium Valerianate and Morphine
“ Oleate 2%	Antiasthmatic Comp.—Blackwood
“ solution 20%	Celery Comp.
“ Phosphate	Celery and Black Haw
“ Phthalate	Celery, Kola and Coca Comp.
“ Salicylate	Celery and Kola Comp.
“ Sulphate	Chloroform, Comp. N.F.
“ Tannate	Coca
“ Tartrate	Coca Compound
“ Valerate	Creosote Compound

Creosote and Terpin Hydrate, Compound
 Diacarpine (Norwich)
 Glycerin and Heroin Compound
 Gold Chloride (Norwich)
 Gold Chloride no Atropine (Norwich)
 Heroin
 Heroin, Comp. No. 1, No. 2
 Heroin and Pilocarpine Comp.
 Heroin and Terpin Hydrate
 Kola Comp.
 Kola and Celery Comp.
 Morphine Aromatic
 " Hydrochloride
 " Valerianate
 Opium, Deodorized
 Pectoral, or Pulmonic
 Pertussic Comp. (Wampole)
 Pilocarpine Comp.
 Poppy Comp. R 1 and R 2
 Saw Palmetto Comp.
 Saw Palmetto and Pichi, Comp.
 Sedative
 Terpin Creosote Comp.
 " Hydrate and Codeine
 " Hydrate with Heroin

EXTRACTS

Coca
 Opium, U.S.P.
 Opium Aqueous (Milliken)
 Poppy Heads
 Warburg's Tincture
 Warburg's Tincture, without Aloes

EYE OINTMENTS AND COLLYRES

Holocaine Hydrochloride (Lilly)
 Clin's Collyres—see list E. Fourgera & Co.

FLUIDEXTRACTS

Celery Comp. (Upjohn)
 Coca, U.S.P.
 Coca and Celery
 Coca, Soluble
 Ipecac and Opium
 Kola, Compound
 Opium
 Opium, Camphorated
 Opium, Concentrated
 Opium, deodorized (see Tinctures)
 Poppy Heads
 Saw Palmetto, Comp.
 White Pine Comp. for Syrups
 White Pine Comp., Red, for Syrups
 Wild Cherry, Compound

HOMEOPATHIC REMEDIES

Boericke & Runyon's List
 Apomorphia, 1x, 2x, 3x, in any form
 Erythroxylon Coca, Tinct. and all potencies
 Heroin, 1x, 2x, 3x, in any form
 Morphia sulph., 1x, 2x, 3x, in any form
 Opium Tinct., 1x, 2x, in any form
 Tablets, Codein 1/25 gr. 1/10 gr. 1/8 gr.
 1/5 gr. 1/4 gr. 1/2 gr. 1 gr.
 Heroin 1/24 gr. 1/12 gr.
 Morphia sulph. 1/10 gr. 1/8 gr. 1/6 gr. 1/4 gr.

Tablet No. 30, 31, 35, 105, 111, 118,
 133, 142, 143, 144, 157, 159, 162,
 163, 182, 201, 209, 221.

Specialties:

Elixir Heroin and Terpin Hydrate
 Coca Wine

LOZENGES and COMPRESSED LOZENGES

Bronchitis Improved (Norwich)
 Brown Mixture
 Brown Mixture Comp.
 Brown Mixture and Ammonium Chloride
 Cocaine Compound
 Cocaine and Cubeb Comp..
 Follicular Tonsilitis No. 3
 Glycyrrhiza and Opium U.S.P.
 Jackson's Ammonium
 Jackson's Pectoral
 Licorice and Anise Comp.
 Licorice and Opium U.S.P.
 Menthol Throat
 Menthol and Cocaine Comp.
 Morphine and Ipecac (H. B. & W.)
 Oral Astringent (P. D. & Co.)
 Red Gum Compound
 Thymo Heroin Comp.
 White Pine Comp. Cough
 Wistar's Cough
 Wild Cherry Comp.

John F. Hancock & Son's List

Acetanodeine
 Acid, Boric Comp.
 Aconite Compound
 Ammonium-Codeine
 Ammonium Iodide Comp.
 Antalgic
 Camphor Compound
 Chlorodyne
 Cocaine 1/20 gr. 1/10 gr.
 Cocaine Compound
 Cocaine and Cubeb
 Cocaine and Opium
 Cocaine and Rhatany
 Cocanilid
 Codeine 1/10 gr. 1/5 gr.
 Cubeb Compound
 Heroin No. 1 1/24 gr. No. 2 1/12 gr.
 Heroin Compound
 Lebelia Compound
 Muco-Sedative
 Muco-Stimulant
 Rhatany and Opium
 Sedative, S.
 Terpin-Heroin-Benzoeic

OLEATES

Cocaine U.S.P.
 Mercury and Morphine (Squibb)
 Morphine, 10%

PILLS and GRANULES

Acetanilide and Quinine Comp.
 Acetphenetidin and Quinine Comp.
 Alterative
 Ammonium Muriate, Comp.
 Anodyne
 Anodyne Granules (Norwich)
 Antispasmodic

Anti-Syphilitic Nos. 1 and 2—Castano
 Aphrodisiac Improved
 Aphrodisiac Comp. (P. D. & Co.)
 Astringent (Upjohn)
 Atropine and Morphine B. C. D. (Upjohn)
 Blue Mass Compound
 Calomel and Opium
 Camphor Compound
 Camphor and Opium N. F. Nos. 1 and 2
 Camphor, Opium and Hyoseyamus
 Camphor, Opium and Lead Acetate
 Camphor, Opium and Tannin
 Chanteud's Granules—see List of E. Fougere & Co.
 Chlorodyne
 Chlorodyne, half strength
 Chronic Dysentery—Holston
 Coca and Phosphorus, Comp.
 Coca, Phosphorus and Strychnine
 Cocaine Hydrochloride (all sizes)
 Codeine (all sizes)
 Codeine Sulphate (all sizes)
 Codeine Sulphate Metric Granules (Norwich)
 Colax
 Cold, Laxative (Upjohn)
 Diaphoretic
 Diarrhea Pellets
 Dover Powder
 Dysmenorrhea—Brooks
 Dysmenorrhea—Alvord
 Heims
 Heroin (all sizes)
 Hydrargyrum Comp. No. 1
 Ipecac and Opium (all sizes)
 Ipecac and Opium Comp.
 Ipecac and Squill B.P.
 Mercury Iodide and Opium—Ricord
 Mercury Protiodide and Opium
 Mercury and Chalk No. 2
 Mercury Yellow Iodide and Opium
 Morphotropia (all sizes)
 Morphine Acetate 1/8 gr. 1/4 gr.
 Morphine and Atropine No. 1, No. 2 and No. 4
 Morphine Hydrochloride 1/8 gr.
 Morphine and Belladonna No. 1
 Morphine Sulphate (all sizes)
 Morphine Valerianate (all sizes)
 Neuralgic, Brown-Sequard, N.F.
 Neuralgic, Brown-Sequard, half and quarter strength
 Neuralgic, Gross, N.F.
 Neuralgic, Gross, half strength
 Neuralgic, Gross, Pink Granules
 Opium and Bismuth
 Opium, Camphor and Lead Acetate
 Opium Extract (all sizes)
 Opium U.S.P., 1 gr., $\frac{1}{2}$ gr.
 Opium, Powdered (all sizes)
 Opium with Soap
 Opium and Camphor, N.F.
 Opium, Camphor and Tannin (Wampole)
 Opium and Lead, N.F. (all sizes)

Opium and Silver Nitrate No. 1 and No. 2
 Opium, Tannin and Lead
 Phenacetine and Quinine Comp.
 Quinine and Dover's Powder
 Sedative—Mann
 Silver Nitrate and Opium
 Syphilitic, Ricord, Modified
 Terpin Hydrate and Codeine No. 1 and No. 2
 Warburg's Tincture R2
 Warburg's Tincture (without Aloes) R4

POWDERS

Brown Mixture
 Chalk, Aromatic with Opium N.F.
 Diaphoretic—Beach's
 Ipecac and Opium (Dover) U.S.P.
 Ipecac and Opium Camphorated
 Morphine Compound (Tully's) U.S.P.
 Tinct. Poppy Compound
 Tully's Modified

SOLUTIONS

Chlorodyne (5717)
 Cocaine Hydrochloride, 2% with Acetiform
 Cocaine Hydrochloride, 4% with Acetiform
 Morphine Citrate
 Morphine Hypodermic

SUPPOSITORIES

Sharp & Dohme's List
 Cacao Butter Aural No. 162J
 Rectal
 No. 1A to No. 11A incl.
 No. 15A to No. 23A incl.
 No. 24B
 No. 31A, No. 32A, No. 33A
 No. 39A, No. 40A, No. 41A, No. 42A
 Norwich Pharmacal Co.'s List
 Morphine and Atropine
 Opium 1 gr., 2 gr.
 Opium and Belladonna
 Opium and Hyoseyamus
 Morphine Sulphate 1/8 gr.
 Unguentine Cones with Opium

SYRUPS

Anodyne Pine Comp. with Heroin
 Balm Gilead Comp. (Norwich)
 Balm Gilead with Heroin (Norwich)
 Blood Root and Cherry Compound No. 2 (Norwich)
 Blood Root with Diacetylmorphine Hydrochloride (Upjohn)
 Blood Root with Heroin Hydrochloride (Upjohn)
 Cocillana Comp.
 Codeine (Squibb)
 Dover Powder N.F.
 Eubenol-Dionin (Norwich)
 Heroin Compound
 Heroin and Glycerine Comp.
 Heroin and Sanguinaria Comp.
 Heroin Comp. Mentholated
 Heroin and Tolu Comp.

Ipecac and Opium (Dover) N.F.
 Palmo-Dionin (Upjohn)
 Pinus Alba Comp.
 Sedative Comp. (Norwich)
 Terbene Compound
 Terbene with Dionin (Norwich)
 Terbene with Heroin, Tolu and Cannabis Comp. (Norwich)
 Terbene Aromatic with Heroin
 Tolu Compound
 Tolu and Heroin Compound
 White Pine Compound
 White Pine with Heroin
 White Pine, Terpin Hydrate and Heroin
 White Pine with Heroin and Ammonium Muriate
 Wild Cherry Compound
 Wild Cherries and Terbene Comp. with Heroin (Norwich)
 Wild Cherry and Heroin (Milliken)

TABLETS and TABLET TRITURATES

Acetanilide Compound Nos. 5 and 7
 " and Tully's (Norwich)
 " Comp. with Codeine No. 1
 " Comp. with Heroin
 " and Quinine Compound
 " Salicylate and Morphine Nos. 2 and 3
 " and Sodium Comp. with Codeine
 " and Sodium Comp. with Heroin
 " and Sodium Salicylate Comp.
 " with Codeine Nos. 26 and 216 (Upjohn)
 Aconite Compound
 Alkaloid Codeine (Lambert & Lowman)
 Ammonium Chloride Comp. with Codeine
 Ammonium Chloride Comp. with Diacetylmorphine
 Ammonium Chloride Comp. with Heroin
 Ammonium Muriate Comp. with Codeine
 Ammonium Muriate Comp. with Heroin
 Ammonium Salicylate Comp. Nos. 1 and 3
 Ammonium Salicylate and Acetanilide Comp., $\frac{1}{2}$ strength
 Alum Comp. No. 1 for injections
 Alum Compound No. 2
 Anodyne Comp. with Codeine
 " Nos. 1 and 2
 " Expectorant—Bolton
 " Expectorant No. 2
 " Infant—Waugh
 " (Lilly)
 " Mild
 Analgia Comp. with Codeine
 Analgesic Compound
 Analgesic Comp. and Heroin
 Analgesic Comp. with Sodium Salicylate and Codeine (Wampole)
 Antiasthmatic—Stevens
 Antobronchitis
 Anticold
 Anticold No. 3—Averill
 Anticold Gordon
 Antidiabetic Nos. 1 and 2

Antilupia and Codeine (Norwich)
 Antipyrine and Heroin Comp. (Spuibb)
 Antisyphilitic No. 2 (Upjohn)
 Antivomiting Nos. 1 and 2
 Apomorphine Hydrochloride (all sizes)
 Aspirin Compound—Kyle
 Aspirin and Codeine
 Astringent Wash
 Atropine-Aconite Comp.
 Bismuth Catechu Comp.
 " and Ipecac Nos. 1 and 2
 " and Opium
 " and Paregoric Comp.
 " Opium and Carbolic Acid
 " Opium and Phenol (Milliken)
 " and Salol Compound
 " Subnitrate, Opium and Carbolic Acid
 Blue Mass Compound
 Boric Acid and Potassium Comp.
 Bromides Compound
 Bromides Compound one-half strength
 Bromide Compound Nos. 1 and 2—Hubbard
 Bronchitis
 Bronchitis—Delafield
 Bronchitis Improved
 Bronchitis No. 3
 Brown Mixture (all sizes)
 Brown Mixture Compound
 Brown Mixture and Ammonium Chloride Nos. 1 and 2
 Brown Mixture Comp. modified with Heroin
 Caffocodine (Fraser)
 Caffocodine Compound (Fraser)
 Calomel and Dover Powder (all sizes)
 Calomel and Opium Nos. 1 and 2
 Camphor, Opium and Tannin
 Cannabis and Aconite Comp.
 Cannabis and Codeine
 Cardiac Asthma
 Cardiac Waldstein
 Carminative No. 2
 Chlorodyne
 Chlorodyne, half strength
 Cholera Infantum Nos. 2 and 3
 Coca, fluidextract
 Cocaine
 Cocaine Hydrochloride (all sizes)
 Cocaine Hydrochloride 1 1/8 gr. for solution (Upjohn)
 Cocaine and Cubeb Compound
 Cocaine without sugar (all sizes)
 Codeine (all sizes)
 Codeine Alkaloid (all sizes)
 Codein Phosphate (all sizes)
 Codeine Sulphate (all sizes)
 Colax
 Cold Nos. 1 to 6 incl.
 Cold Gage
 Cold No. 3
 Cold No. 3 with Aloin
 Cold Laxative
 Cold Laxative R "C" (P. D. & Co.)
 Cold Preferred
 Colic No. 1 and 2 Infantile
 Copper and Opium

Coryza Nos. 1 to 6 incl. (see Note)
 Coryza—Bishop —Kenyon —Richards
 —Smith
 Coryza Improved
 Coryza Hospital
 Coryza with Heroin
 Cough Nos. 1 and 2
 " No. 3—Lyon
 " —Drossner —Goodwin
 " Infant
 " Adult
 " Palliative (P. D. & C.)
 " persistent with Diacetylmorphine
 " persistent with Heroin
 Creosote Compound
 Croup No. 2
 Croup Spasmodic
 Damiana Comp. No. 2 (Milliken)
 Diabetes
 Diacetylmorphine (all sizes) sizes)
 Diacetylmorphine Hydrochloride (all
 Diaphoretic—Whitford
 Diarrhea
 Diarrhea Fermentative
 Diarrhea Nos. 1, 2 and 9
 Diarrhea No. 3—Sullivan
 Diarrhea No. 4—Gay
 Digitalis Compound No. 1
 Dionin (all sizes)
 Dover Compound—Terryberry
 Dover Powder (all sizes) Co.)
 Dover Powder and Quinine (P. D. &
 Enteric—Sillo
 Enteritis—Haskell
 Expectorant—Rankin —Harvey
 Expectorant Nos. 4 and 5—Jones
 Expectorant No. 6
 Expectorant Tonic
 Febrifuge
 Fever
 Fever Kenyon
 Follicular Tonsillitis
 Gastric Sedative
 Gastritis
 Gastritis No. 1—Pepper
 Grip Special (Fraser)
 Grippe No. 1—Becker
 Grippe No. 2—Drake —Quigley
 Grippe No. 3
 Headache Neuralgia—Rodgers
 Helonias Compound, Vaginal
 Hemostatic
 Heroin (all sizes)
 Heroin Compound (all sizes)
 Heroin Hydrochloride (all sizes)
 Heroin and Terpin Hydrate (all sizes)
 Hydrastine Compound
 Hydrastine white Alkaloid Comp.
 Hyoseyamus Cough
 Hysteria
 Injection Compound No. 2 (Wampole)
 Ipecac and Opium, see Dover Powder
 Krameria Compound
 Laxative Cold No. 2
 Lead and Laudanum
 Lead and Opium
 Leucorrhea (Helonias Astringent)
 Lencorrhea Mild (Helonias Astringent)

Mercurous Iodide and Opium Nos. 1 and
 2
 Mercury and Opium
 Mercury Protiodide and Opium
 Mercury with Chalk and Dover Powder
 Mercury with Chalk and Dover Powder
 "B" (P. D. & Co.)
 Morphine Acetate (all sizes)
 " Bromide Compound
 " Bromide No. 2
 " Hydrochloride (all sizes)
 " and Salicylic Acid Nos. 1
 and 2
 " Sulphate (all sizes)
 " and Atropine (all sizes)
 " and Atropine (all combina-
 tions)
 " and Belladonna
 Naso-Pharyngeal
 Nausea, Pl.
 Nausea No. 2 and No. 4
 Neuralgic
 " —Arthur
 " —Brown-Sequard
 " —Brown-Sequard $\frac{1}{2}$ strength
 " —Dunlap
 " —Gross
 " —Gross $\frac{1}{2}$ strength
 Neuralgic Headache—Myers
 Neuralgic No. 10—Thrush
 Opium, Camphor and Tannin
 " Camphor and Ammonium Carb.
 " Camphor and Lead Acetate
 " Camphorated, Tinct. (all sizes)
 " Deodorized Tinct.
 " Powdered (all sizes)
 " Tinct. U.S.P. (all sizes)
 " and Camphor
 " and Camphor R "B" (P. D. &
 Co.)
 " and Hyoseyamus
 " and Ipecac Compound
 " Ipecac and Blue Mass
 " and Lead
 Paragoric Compound
 Paragoric U.S.P. equivalent to 5 and 10
 min.
 Phenacetin Compound
 Phenacetin and Quinine Compound
 Pinus Alba Compound
 Potassium Chlorate and Cocaine
 Quinine and Dover Powder
 Rheumatism Nos. 1 and 3
 Rheumatism Improved
 Rheumatism—Liggett
 Salicetol Compound (Stoddard)
 Salicetol Codeia (Stoddard)
 Salicylate Acid and Morphine Nos 1
 and 2
 Salmaerin (Weaver)
 Salol Compound (all sizes)
 Sanguinaria Compound (Stoddard)
 Sanguinaria Comp. and Codeine (Nor-
 wich)
 Sciatia Improved (Norwich)

NOTE—Parke, Davis & Co., announce that
 their Coryza Tablets—C. T. 243; C.C.T. 65;
 T.T. 722; C.C.T. 66 and C.C.T. 376 do not con-
 tain any opiate. Examine the label!

Sun Cholera
 Syphilitic
 Syphilitic R "A"
 Tartar Emetic and Morphine—Hall
 Terpin-Hydrate Compound—Brockbank
 " and Creosote Comp. No. 2
 " Diacetylmorphine No. 2 (Upjohn)
 " and Heroin Nos. 1 & 2
 " and Codeine (all sizes)
 " and Heroin Comp. (P. D. & Co.)
 Throat Mentholated
 " —Quinlan
 Tully's Powder (all sizes)
 Uterine Astringent and Antiseptic
 Voice
 Warburg's Tincture No. 1
 " Tincture No. 2 without Aloes
 White Pine Compound
 Whooping Cough No. 3 (Wampole)
 " Cough No. 4
 " Cough Improved (Norwich)

TABLETS—DISPENSARY

Cocaine
 Cocaine Hydrochloride (all sizes)
 Codeine (all sizes)
 Codeine Alkaloid
 Codeine Phosphate (all sizes)
 Codeine Sulphate (all sizes)
 Heroin Hydrochloride (all sizes)
 Morphine Hydrochloride
 Morphine Sulphate (all sizes)

TABLETS—HYPODERMIC

Adrenalin and Cocaine
 " R "B" "C" "D" (P.D.&Co.)
 " and Eucaine R "B" (P.D.&Co.)
 Antiasthmatic, Timmerman
 Apomorphine and Strychnine
 Apomorphine Hydrochloride (all sizes)
 Cardiac No. 2 (Norwich)
 Cocaine Hydrochloride (all sizes)
 Codeine Phosphate no sugar (all sizes)
 Codeine Phosphate (all sizes)
 " Salts and all combinations
 " Sulphate (all sizes)
 Diacetylmorphine Hydrochloride (all sizes)
 Eserine and Morphine (all sizes)
 Eucaine Hydrochloride (all sizes)
 Eucaine Lactate
 Heroin Hydrochloride (all sizes)
 " Salts and all combinations
 Hubbard's Bromides Nos. 1 & 2 (Squibb)
 Hyoscine Comp.
 " and Morphine (P. D. & Co.)
 " " Bromide Comp.
 " " " Brom. Comp. 1/2 strength
 Local Anesthetic, Dental (all sizes)
 Morphine Bimeconate
 Morphine and Cactin (Milliken)
 Morphine Comp. Nos. 3, 9, 10, 11, 18
 (Wampole)

Morphine Hydrochloride (all sizes)
 Morphine and Hyoscine
 Morphine Meconate (all sizes)
 Morphine Nitrate (all sizes)
 Morphine and Strychnine
 Morphine Salts and all combinations
 Morphine Sulphate (all sizes)
 Morphine and Atropine (all sizes)
 Morphine, Atropine and Strych. (all sizes)
 Morphine and Strychnine (all sizes)
 Morphine Sulphate (Fraser)
 Morphine Sulphate and Atropine Sulphate (Fraser)
 Morphine Compound—Tupper
 Nitroglycerin Comp. (Lilly)
 Nitroglycerin, Strychnine and Morphine
 Scopalamine and Morphine (all sizes)
 " Morphine Comp. (P.D.&Co.)

TABLETS—OPHTHALMIC

Cocaine Hydrochloride

TABLETS—VAGINAL

Leucorrhea, Improved (Lilly)
 Morphine and Belladonna
 Uterine Compound (Lilly)
 Vaginal Astringent No. 2 (Norwich)
 Vaginal Astringent No. 1, No. 2 (Wampole)

**TABLETS—VETERINARY
HYPO**

Cocaine Hydrochloride (all sizes)
 Codrenin (P. D. & Co.)
 Colic—Knowles
 Morphine Sulphate (all sizes)
 Morphine and Atropine (all sizes)
 " and Hyoscine (P. D. & Co.)

TINCTURES

Bateman's Drops (Upjohn)
 Coca Leaves
 Ipecac and Opium U.S.P. 8th Revision
 Kino Comp (Squibb)
 Opium Acetic
 Opium U. S. P.
 Opium Comp. N. F.
 Opium Comp. (Squibb's Mixture)
 Opium Denarcotized
 Opium, Deodorized, U. S. P.
 Opium Pectoral
 N. T. Erythroxylon (Coca)
 Warburg's Tincture N. F.
 " without Aloes

WINES

Coca, U. S. P.
 Coca, Aromatic N. F.
 Coca and Beef
 Coca, Beef and Iron
 Coca and Celery
 Coca and Hypophosphites (Lilly)
 Coca and Phosphorus Comp. (Merrell)
 Kola Compound
 Opium U. S. P.

Please notify us at once of any errors or omissions in this list—D. O. H. & CO.

SPECIALTIES & PROPRIETARIES

The number in parenthesis refer to names of manufacturers in Part 3, Era Price List.

Adrenalin Compound Suppositories (4353)
 " and Cocaine Tablets (4353)
 " R "B" "C" "D" (4353)
 " Eucaïne R "B" (4353)
 Apii Compound (Hammond) (4177)
 Antigial Powder & Tablets (4536)
 and Codeine (4536)
 and Quinine (4536)
 Battley's Liquor Opii Sedativus (1987)
 Bechol with Heroin (3769)
 Bronchoids (5877)
 Bronchial Sedative, Palmer (3837)
 Browne's Chlorodyne (1987)
 Brown's (Dr. George) Eye Drops (755)
 Cough Syrup (755)
 Laryngial Gargle (755)
 Throat Lozenges (755)
 Cannabis Comp. Merrell (3769)
 Capsodyne (4366)
 Cerebral Sedative Comp. (4353)
 Chloro-Cannabine (3842)
 Chlor-Anodyne
 Chlorodyne, Morphine sulph. (2627)
 Chlorodyne, American—S. & D. (5118)
 Chlorodyne, Chandler's Modified (3769)
 " Chandler's (3837)
 Chlorodylina (3266)
 Cholera Mixture—Shoemaker's (5150)
 Codeonal—Knoll (3174)
 Codrenin R "A," "B," "C." (4353)
 " Ampoules R "C" (4353)
 Creo-Pin (2627)
 Creosote Comp. (2739)
 Cuanha Comp. (2739)
 Eudrenin Ampoules R "B" (4353)
 Expectorant Wafers—Merrell (3769)
 Foutz's Certain Kolik Remedy (1991)
 Glycerite Heroin (2627)
 Glycerin Heroin Comp. (5877)
 Glycerite Heroin Comp. (5247)
 Glycerole Heroin Comp. (3769) (4177)
 (150)
 Glycerole Heroin & Terpin Hydrate (3837)
 Glyceroin (2739)
 Glyco Creosote (2859)
 Glyco-Heroin (5236)
 Glyco-Pin (2627)
 Glyco Terpin (4366)
 Gonorrhea Treatment (4177)
 Herobalm (1204A)
 Horoglypine (1204A)
 Heroin Sedative Comp. (1204A)
 Herokal (4366)
 Herolyptus (4366)
 Heropine (3842)
 Heroton (3266)
 Herotone Tablets (4801)
 Hypnotic Comp. (1204A)
 Iodo Codeine (2627)
 Ichthyannic Suppositories (5877)
 Lactu Heroin (2739)
 Lactu Heroin Modified (2739)
 Linctus Comp. (5118)
 Liquor Paverine (4366)
 Locathesia (3266)

Mead's Terpo-Dionin (3720)
 Morphol (3266)
 Nebulol Nos. 41 and 47 (Upjohn) (5717)
 Oeusal "B" (4177)
 Palmettine (3266)
 Palmo-Dionin (Upjohn) (5717)
 Pantopon (2644)
 Pantopon Scopolamine (2644)
 Paracodin—Knoll (3174)
 Pinosa (3266)
 Pixine Colic Cure (4479)
 Pruni-Heroin (6153)
 Rami Drops (1987)
 Sangui Heroin (4366)
 Sedapine (3842)
 Stricture Crayons (A) (B) (4177)
 Styptol - Knoll (3174)
 Syr. Heropliga (4366)
 Syr. Terbenol Aromatic and Heroin (4177)
 Terpinine (3842)
 Terpinola (3266)
 Terpo-Dionin—Mead's (3720)
 Ungentine Cones with Opium (4177)
 Ungentine Crayons (4177)
 Ungentine Crayons with Protargol (4177)

E. FOUGERA & CO.'S LIST

Battley's Liquor Opii Sedativus (Opium)
 Browne's Chlorodyne (Opium)
 Chanteaud's Granules
 No. 64 (Cocaine)
 No. 65 (Cocaine Chlorhydrate)
 No. 66, 123, 14 (Codeine)
 No. 102, 11, 15, 21 (Gregory Salt)
 No. 46 (Apomorphine)
 No. 90 (Morphine Bromhydrate)
 No. 10 (Morphine Chlorhydrate)
 regular No. 10 has no Morphine
 No. 91, 9 (Morphine Chlorhydrate)
 No. 25 (Bromhydrate)
 No. 93 (Narceine)
 Clin's Collyres:—
 No. 400, 401 (Dionine)
 No. 402, 403 (Stovaine)
 No. 390, 391, 438, 439, 642, 647,
 646 (Cocaine Chlorhydrate)
 Clin's Ampoules for Hypo. Injections:—
 No. 236, 237, 238 (Cocaine Chlorhydrate)
 No. 207 (Apomorphine)
 No. 293, 294, 212, 369 (Morphine Chlorhydrate)
 No. 511, 206, 221 (Cocaine)
 No. 355, 356, 661, 336 (Eucaïne B)
 No. 356 (Cocaine Chlorhydrate)
 No. 261 (Heroin)
 No. 593 Morphine)
 No. 548 (Morphine Sulphate)
 No. 374, 297 (Morphine Chlorhydrate)
 No. 346, 347, 315, 636 (Stovaine)
 Rami Drope (Codeine)

JOURNAL OF MAINE MEDICAL ASSOCIATION

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Editorial Comment.

Radiography in War Time.

Foreign journals are filled with papers on the discovery of bullets and fragments of shells in the wounded. A great deal of stress is now laid on the imperfect information given by a single exposure and equal stress upon the utilization of the stereoscopic exposure in order to make the localization more perfect. Amongst the curiosities of defective localization I will mention one in which a bullet was apparently "placed" in the front side of the humerus. Confidently cutting down at the place assumed, nothing was found. A second incision on the back side of the humerus failed to find the missing missile. Finally holding the arm up out of the way and making a fresh radiograph; lo and behold the missing bullet was seen in the axilla. There it was soon found and extracted. Other oddities are of German bullets turning completely around in their course and pointing out of the body instead of into it. An officer wounded at Ypres and another at Dixmude showed bullet injuries in the patella and the bullet was discovered in the popliteal space. One man was wounded five times by one bullet. Guess how. Through both buttocks twice, and the bullet also grazed the scrotum so as to raise a scar. Another man has been hit 27 times yet is recovering. Dum dum wounds are now regarded as due to the stripping off of the nickle covering of bullets of today. This appearance is especially marked if bony tissue is hit by bullet in its course outward. The latest mottos for surgery is: Never probe for a bullet. Skiagraph it at once.

Reformatory for Women.

The Hall of Representatives at the State House was filled Thursday afternoon, Feb. 18, with prominent people from all parts of Maine, assembled there to endorse the urgent need of a Woman's Reformatory.

The numbers and personnel of this gathering, the many petitions, and the clear evidence presented by judges, police captains, leaders of men's and women's organizations, and social service workers throughout the State show that Maine is waking up to the importance of providing a more suitable place for the commitment and training of girls over sixteen than the common jail.

The State Board of Charities and Corrections is giving strong support to this movement, and advises the purchase of a farm and the utilization of the buildings upon it as the initial step toward the establishment of a Reformatory.

The value to the community of an institution which, both by its saving influence and its deterrent power, will keep women from a life of vice, is evident, at least, to every physician, because a physician knows how large a proportion of organic and functional diseases can be directly or indirectly traced to immoral living.

A doctor's time must be largely given to the alleviation of those who come to him for help, but a medico-legal measure of such importance as this proposed act for a Woman's Reformatory should receive the active support of the medical profession.

A few words written at this time to Gov. Oakley C. Curtis or to Senator George C. Emery, chairman of the Committee on appropriations, would aid the Maine Prison Association in this work.

Collosal of Silver and Mercury.

These two valuable colloidal preparations of silver and mercury are coming much into light in various branches of British military surgery of today. These preparations were first brought forward by Crooks in 1911, and in presenting them to a scientific society he said: "I know of no microbe that is not killed by them in laboratory experiments in six minutes." If this assertion is true, these remedies will soon find their place throughout the surgical world. At present, the chief use made of the silver colloidal is in gonorrhœal ophthalmia, blepharitis, and inflammation of the conjunctiva generally. The silver preparation can be used for these diseases, dropped into the eyes or after softening the crusts on the lids, wiped gently upon the roughened surface beneath. The silver collosal is a clear sherry wine colored liquid, and is a solution containing actual metallic silver in a colloid form.

It is worth suggesting that experiments should be made in other surgical diseases with both the mercurial and the silver collosol, encouraging as are the latest reports from the field of war.

Eye Injuries in the War.

It has long been known that injuries to the skull or orbit or jaw would produce loss of sight in one or both eyes from extension of the fracture to the orbita canal, or from local hemorrhage pressing on the optic nerve. Cases of this sort of loss of sight without any injury to the skull or orbit as exhibited in the present war are constantly occurring and are referred to the explosive action of the air upon the outer coats of the eye itself. The general type of such eyes exhibit small or larger retinal hemorrhages with rupture of the choroid and occasionally retinal detachment. From a long list of injuries to the eye, I have counted many due to missiles which had already flown 2,000 meters before hitting the eye. These consist as usual in hemorrhage internally, with occasional traumatic cataract. One case of hemorrhage into the anterior chamber occurred after falling from horse-back. A few cases of double vision from ocular paralyses of various muscles are interesting and confirm similar instances from accidents in times of peace. In one case, the whole orbit was smashed to bits, as one might say, yet within the circle of comminuted bone the eye lay intact, though damaged internally from concussion. Out of 127 stated injuries, more than half lost the sight of one eye entirely.

A New Industrial Poison—Tetrachlorethane.

Hardly have we become accustomed to the ravages of wood alcohol, and its preparations, than a new industrial poison has come to the front and calls for notice here, as it may explain some rare diseased conditions in which the physician is hard set for a diagnosis.

A polisher in an aeroplane factory who had been using a French preparation called Emaillite, for putting the finishing touches to aeroplanes, fell ill in London in December, with an odd train of symptoms which puzzled the physicians. The man suffered from nausea, jaundice, brown urine, slight pains in the upper abdomen, slight temperature, enlargement of the liver, conjunctivitis and little ulcers on the outer surface of the lower lids. The man died. Others employed in the same business, particularly women, exhibited flushing of the cheeks, jaundice, and liver enlargement. A post mortem examination of the man, showed enlarged liver with total destruction of the cells. Experiments were then carried on with rats in the same varnish shop,

and they soon exhibited liver cells broken down after enlargement. Examination of the factory showed a curious visible layer of vapor elevated not more than four feet above the floor, and it was proved that employees working at that level suffered from the various symptoms, while others on a higher staging, or in a second story had no trouble at all. Examination of the varnish discovered a marsh-gas substance named tetrachlorethane, which was blamed for the death above noted and for the symptoms in other employees. The result of all these steps was to contrive an exhaust air pump which pulled off out of the factory from the lower levels, all of the vapor from the varnish, with the result of stopping farther trouble amongst those employed.

The incident shows the proper scientific discovery of a deadly poison and of its remedy.

County News and Notes.

CUMBERLAND.

The thirty-fifth regular stated meeting of the Cumberland County Medical Society was held Friday evening, February the twelfth, at the Congress Square Hotel, Portland. Ninety-seven physicians were in attendance.

The Board of Censors reported favorably on the name of Dr. Leon S. Lippincott of Brunswick and he was duly elected a member of this Society.

The Secretary read a communication from the Chairman of the Maine Prison Association, asking our support in the movement to obtain a Reformatory for Women in this State. The Society un-animously voted to sign the petition in its behalf.

Dr. Elmer J. Noyes of Lovell presented his application for membership which was duly referred to the Board of Censors for their approval. The papers of the evening were read by Dr. H. H. Roberts of Poland Springs and Dr. Fred B. Lund of Boston, their subjects being respectively, "The Diagnosis and Medical Treatment of Gastric and Duodenal Ulcer" and "The Diagnosis and Surgical Treatment of Gastric and Duodenal Ulcer." These two papers were especially valuable, being read by men of extensive experience and the discussion which they brought forth was taken part in by a large number of the members present. Dr. Edwin W. Gehring and Dr. Richard F. Chase opened the discussion.

The meeting closed at a late hour, following which a "Dutch Lunch" was served.

ADAM P. LEIGHTON, JR., M. D.,
Secretary.

PORTLAND MEDICAL CLUB.

The first meeting of the year, 1915, was called to order at 8.15 p. m., at the Columbia Hotel, Dr. Alfred Mitchell, Jr., in the chair. Twenty-six members were present.

The minutes of the previous meeting were read and approved.

The Board of Censors reported favorably upon the applications of Drs. T. O. Vanamee and W. E. Elwell and they were elected to membership.

The application of Dr. J. S. Jamieson was presented to the Club and referred to the Board of Censors.

A letter of resignation from Dr. Charles B. Witherle was read by the Secretary and the acceptance of the resignation voted by the Club.

Dr. Gilbert gave a brief outline of the Osteopathic Bill before the Maine Legislature, and questioned if it were best to let the matter be settled at this meeting of the Legislature or be postponed another year, when the medical profession might not be so well represented.

Dr. Burrage reported an interesting case, and presented a necropsy specimen; cancer of the common-duct.

Cases were reported by Drs. Gilbert and Dunn.

The paper of the evening, by Dr. Richard F. Chase, "The Comparative Value of Some Diagnostic Methods in Diseases of the Stomach," stated that, in consequence of a lack of general knowledge of the modern methods of clinical diagnosis, the value of these methods is not duly appreciated; that X-Ray examinations are not required as often as generally believed if the clinical methods are employed, citing observations to this effect; that surgical exploration is often required to settle the diagnosis in suspected cancer, and at times, in chronic ulcer; that the lack of the observation of the patient's weight and the use of palliative remedies, are the two chief causes of failure to suspect cancer earlier in its course; that it is the competent clinician's duty to know when either a surgical exploration or an X-Ray examination is required in a case after a reasonable period has been allowed for clinical examination; that three weeks should be sufficient time for diagnosis in early cancer, and if the diagnosis is then doubtful, surgical exploration may be made.

The paper was discussed by Drs. Milliken, Burrage, Thayer, Hanson, Moulton and Bradford.

The meeting was adjourned on motion, at 9.45 p. m.

BENJAMIN FOSTER, *Secretary*.

HANCOCK.

The Hancock County Medical Society held a regular meeting at the residence of Dr. C. C. Morrison at Bar Harbor, on Wednesday evening, February 17th.

Dr. G. A. Neal of Southwest Harbor, reported two cases of Menier's disease.

Dr. Lewis Hodgkins of Ellsworth read a very entertaining paper, entitled "Haps and Mishaps of Twenty-five years' of practice."

Judge Elliott N. Benson of Bar Harbor read an instructive paper entitled "Medico-legal Relations of Physicians and Patients."

Those present were:—Drs. Geo. Phillips, C. C. Morrison, R. W. Wakefield, Geo. Hagerthy, R. G. Higgins, J. H. Patten, Sherman Cleaves, and Judge Elliott N. Benson of Bar Harbor; Drs. G. A. Neal, Southwest Harbor; F. H. Freeman, Surrey; I. B. Gage, Atlantic, and Dr. Lewis Hodgkins of Ellsworth.

During the social hour, Dr. C. C. Morrison, the host, entertained those present with a delicious lunch. G. A. NEAL, *County Secretary*.

KNOX.

The regular bi-monthly meeting of the Knox County Medical Society was held in the Thorndike Hotel parlors, February 9th, at 11.00 a. m., Dr. Hadley presiding.

Clinical cases of unusual interest were presented by Drs. W. M. Spear, A. W. Foss, of Rockland, and G. H. Coombs of Waldoboro.

The Secretary reported concerning the meeting of county secretaries at Bangor, December 8th.

Dr. Freeman F. Brown of Vinal Haven, was a guest of the Society.

The following doctors were present:—W. F. Hart, W. H. Young, Camden; C. N. Steward, Rockport; L. W. Hadley, Union; G. H. Coombs, Waldoboro; F. F. Brown, Vinal Haven; F. B. Adams, A. W. Foss, M. P. Judkins, M. J. O'Connor, E. B. Silsby, W. M. Spear, and F. H. Webster, Rockland. F. H. WEBSTER, *County Editor*.

SAGADAHOC

The Sagadahoc County Medical Society held its quarterly meeting on February 24th, at Bath, Maine.

Dr. Estes Nichols presented an instructive paper on "Tuberculosis." Dr. Warren Kershner had as his guest, Dr. Foss of Brunswick.

The officers elected for the following year:—Dr. E. M. Fuller, President; Dr. A. A. Stott, Vice President; Dr. R. C. Hannigen, Secretary and Treasurer. R. C. HANNIGEN, *Secretary*.

Abstracts from Current Literature.

(Canadian Medical Association Journal)

The Liver in Its Relations to Operations on the Biliary Tract and the Stomach.

BY GEO. W. CRILE, M. D., CLEVELAND, OHIO.

Dr. Crile proposes to point out the possibility that the pathologic states requiring operation in the stomach or biliary passages; or the effect of the operation and the anæsthetic; or the combination of these factors may so impair liver function as to jeopardize or even kill the patient.

Dr. Crile, in the laboratory, started to find out the reason for death in those cases which, after the operation, seemed successful, but later gradually became unconscious and died; and to discover by what means the slender margin of safety in these cases may be preserved or, perchance, widened. In the experiments on animals, histological changes were noted in these organs only, the brain, supra-renals, and the liver.

He concluded that the brain, suprarenals and the liver are mutually dependent upon each other in the conversion of latent into kinetic energy. Prominent among the products of this transformation of latent into kinetic energy are acids. To maintain the slight alkalinity of body tissues and fluids, the body is dependent, primarily, on the liver, secondarily, on the suprarenals. For the performance of, at least, a part of its function, it is necessary for the liver to have a simultaneous hormone and nerve stimulation. The nerve supply of the liver is derived from the sympathetic system, the nerve fibres passing along the blood vessels and common duct.

In the course of common duct operations, the nerve supply of the liver will be more or less blocked by the trauma of the operation. The more severe the trauma, the more complete will the nerves be blocked and the longer will that block last.

Another factor, which has a vital bearing upon the treatment of this class of patients we are considering, is the anæsthetic. Both ether and nitrous oxide produce acidity in the blood, which acidity, after coming out from the anæsthetic, was neutralized in about thirty minutes. The lighter the anæsthesia, the shorter the period of neutralization. This gives us the clue to the tendency to acidosis and to death, under anæsthesia, of weak and emaciated patients.

Alcohol caused acidity, but not as marked as that produced by the anæsthetic.

The acidity was not altered by morphine, no matter what the size of the dose. When morphin preceded the anæsthetic, a smaller amount was required to produce complete anæsthesia and acidity was markedly less than in those not using the preliminary dose of morphine. The morphine in no way interfered with the return of the blood to its normal alkalinity; but, if the morphine was given *after* acidity had been produced by the anæsthetic, it postponed the time of neutralization and, if given in large doses, *prevented* the animal from the acidosis.

Measures which will protect or, perchance, widen the patient's margin of safety:—

1. The pre-operative administration of sodium bicarbonate and glucose and of bromides per rectum. Morphin is contraindicated if acidosis is present or threatened.

2. Either twilight anæsthesia or a light nitrous-oxid oxygen anæsthesia.

3. A technique so accurate and so completely associated by the use of local anæsthetics and gentle manipulation that but a small amount of the anæsthetic is needed.

4. As rapid a technique as is consistent with good work, that the period of anæsthesia may be as short as possible.

M. A. WEBBER.

(Canadian Medical Association Journal)

Pelvic Inflammation.

Dr. Lockhart takes up the diagnosis, prognosis and treatment.

Outside the usual expectant treatment with hot and cold packs, hot douches, and the operative, Dr. Lockhart thinks one of the most useful therapeutical agents is dry heat.

Out of twenty-two cases treated by non-operative measures, the application of hot air to the abdomen has been the treatment in fifteen. The number of bakings varied from sixteen to seventy-four, the average being just under forty. The majority were baked twice daily for twenty minutes. In many cases vaginal douching and tamponing and the application of tincture of iodine to the vagina were also practical.

Results: One patient improved, but left afterwards against advice. Three noted as "improved," while eleven were put down as well.

M. A. WEBBER.

(American Journal Insanity, October, 1914.)

The Medical Examination of Mentally Defective Aliens: Its Scope and Limitations.

By L. L. Williams, M. D. Surgeon, U. S. Public Health Service, Chief Medical Officer, Ellis Island, N. Y.

The article deals with the problem of the detection of mental defect among immigrants.

The law divides persons liable to deportation into three classes.

1. Those suffering with physical diseases. The deportation of this class is not mandatory and as a matter of fact such aliens are usually allowed to land.

2. Those persons with infectious diseases, as trachoma. Such immigrants, if allowed to land, would become an actual source of danger to the community and their deportation is mandatory.

3. The third class comprises the insane, epileptics, idiots, imbeciles and feeble-minded.

The exclusion of the insane and low grade idiot is important merely on account of the immediate financial burden to the country involved. More difficult, yet far more important, is the detection and deportation of the higher grades of feeble-mindedness because such individuals not only may become an immediate source of expense to the community, but what is still more undesirable, they are liable "to become the progenitors of an ever increasing line of defective dependents and delinquents." The feeble-minded thus "form the most dangerous class of immigrants seeking admission into the country."

Attempts to exclude these higher grades of mental defect are of comparatively recent date, namely 1907. The passage of laws directed to their restriction was the result of awakened public sentiment.

The writer then goes on to speak of the difficulties involved in the detection of such individuals among the immigrants.

In ordinary practice the physician usually has the benefit of a history to help him in arriving at a conclusion and there is frequently a story of conduct, disorder or other evidence of mental disability which is in itself suggestive. On the other hand the immigration officer must work without any knowledge whatsoever of the previous life history of the immigrant and is obliged to form his conclusions merely from the behavior, appearance, and physical reaction of the person under consideration.

In the weeding out of the suspects for further examination speed is a prime essential as it must be remembered the number of immigrants to be passed upon sometimes reaches 4,000 to 5,000 a day, which allows on the average about 18 seconds a person. All who pass this preliminary examination are allowed to land and are forever lost

sight of. Those who, by means of this brief examination, are suspected of physical or mental defect are detained for further investigation. But too large a number cannot be thus detained as this would result in too great a congestion in the detention space.

The effectiveness of this preliminary examination could be increased if a little more time could be devoted to each immigrant and the writer suggests that the appointment of a larger staff of physicians would be very helpful as even a few seconds more for each person would be valuable.

In spite of these difficulties the work at Ellis Island is becoming more and more effective. In 1912, 18 defectives per 100,000 were certified. In 1913, this had risen to 50 per 100,000, and in April, 1914, to 157 per 100,000.

Greater legislative restrictions are needed but, as the writer concludes by saying, "it may not be too much to hope that the day is not far distant when the intending immigrant will be required to present a clean bill of health, mentally and physically, and a clean bill of character as well and, through agencies to be devised by the scientist and statesman of the future, be compelled to prove his right to enjoy the benefits of American citizenship.

H. M. SWIFT.

(Jour. A. M. A., Nov. 7, 1914.)

A Clinical Contribution to the Diagnosis of Epilepsy.

L. Pierce Clark.

A number of different matters relating to epilepsy are taken up.

The Epileptic Voice Sign. The type of epileptic speech may be designated as the "Plateau Speech" as contrasted with the continual rise and fall of the melody as in the normal speech. In the epileptic the manner of speech is monotonous and the successive sounds do not vary much from each other. This quality of speech is not dependent upon the length of the disease nor upon the number of convulsions which have occurred but is to be regarded as a part of make-up of the epileptic constitution.

High Dosage of Bromides in Petit Mal. — A case is reported in which petit mal attacks recurred with great frequency. The frequency of the attacks was increased and the condition made worse under ordinary doses of bromides (60 to 120 grains a day), but when the amount was increased to 180 to 230 grains daily the attacks ceased. The drug was prescribed in steadily increasing doses as when iodides are given in syphilis, and during the treatment active eliminative measures were used, as high rectal enemata, and hot packs; while the vaso-motor system was toned up by general hydro-therapeutic measures. Massage and respiratory gymnastics were also prescribed.

Gastro-intestinal Roentgenoscopy.—The writer emphasizes the importance of investigating all gastro-intestinal disturbances and advocates the use of the X-ray as a diagnostic and therapeutic aid.

Variations of the Sella Turcica.—Of a series of 20 cases only three or four showed changes in the posterior clinoid process with the X-ray. The writer inclines to the belief that epileptics showing changes in the Sella Turcica present no physical abnormality or variation in the epileptic state different from those not showing such changes.

Differential Diagnosis.—The chief difficulty is in the diagnosis from psychogenic or hysterical states. The writer suggests that many times valuable aid can be obtained from the recognition of the primary epileptic constitution and secondary deterioration. If the epileptic type of personality is present the probability is that the attacks are epileptic rather than hysterical. One need not rely altogether on the description of the seizure type for the final diagnosis, and it is often difficult to judge as to the character of the attack from descriptions given by an excited relative.

On the other hand, epileptics may have attacks which are not epileptic at all but with rather many characteristics akin to genuine hysteria. If such is the case and the epileptic disposition is combined with psychoneurotic symptoms it is important that this complication be recognized and appropriate treatment given. In some cases of this sort psychanalysis may be indicated.

H. M. SWIFT.

Medical Record, Feb. 6, 1915.

The Renaissance of Aconite.

Aconite is one of the drugs which found greater favor in the eyes of earlier clinicians than it does today. But aconite is again coming into its own. There is no other drug which can approach it as an efficient means of reducing high arterial blood pressure.

Tilney in "The Modern Treatment of Nervous and Mental Diseases," reports the results of his experiments with cardiovascular depressants. He found that hypodermic injections of distilled water caused a decided rise in blood pressure. Aconite reduced the blood pressure, but its effects are not always uniform and its commercial preparations are not always reliable. Gelseminine hydrochlorate in doses of one-twenty-fifth grain acts as a mild depressant, but its primary depressant effect is followed by a slight rise, with a subsequent secondary decline which tends to be more persistent.

In cerebral hemorrhage, Tilney finds aconite the more reliable of all the cardiovascular depressants. He uses the tincture in doses of five minims. If, at the end of an hour, no effect has been produced,

the doses may be repeated. If the blood pressure is 200 mm. or over, an initial dose of two minims may be given. He advises pressure readings every half hour. The drug may be continued for several hours till the desired depressant effect is reached. As to what this should be, he says that a fall of 20 or 30 mm. may be deemed sufficient, and that, when the initial pressure is well above 200 mm., the aim should be to bring it down below the 200 mm. mark.

He warns against signs of aconite poisoning as dilatation of pupils, vomiting, irregularity of the pulse, cold, moist skin, an erythematous rash, and dyspnea, which if they occur, are indications to stop the drug.

Thomson, in the *American Journal of the Medical Sciences*, for January, 1915, gives much the same evidence. He condemns the use of nitrates on the ground of their transient effects. Aconite is regarded as the most efficient vasodilator available, but must be given in full doses of ten or fifteen drops of the 10% tincture. He says that, in interstitial nephritis, the most important action of aconite is to increase the elimination of urea. He also recommends it as of particular value in melancholia, associated with high blood pressure.

C. R. BURR.

(American Medical Association Journal, Jan. 2, 1915.)

Contribution to the Physiology of the Stomach.

BY A. J. CARLSON, CHICAGO.

In a previous article, Carlson has shown that (for men and dogs) the stomachics or bitter tonics acting in the *stomach alone* have no appreciable influence on the hunger mechanism when given in usual doses. That these tonics may augment the secretion of gastric juice *indirectly* by increasing the excitability of the nerve endings of taste in the mouth, and possibly the nerves of appetite sense in the stomach, is shown by six tests made on a dog by Borrisow. But Carlson questions if a short series of tests made on one animal can be held as conclusive. The present article is based on fifty tests made with tincture of gentian, calumba, condurango, quassia, humulus, and elixer of quinin, strychnin and iron on a healthy young man. All psychic factors were avoided. These tests show that the bitter tonics, acting either in the stomach or in the mouth, are practically *without influence* on the quantity of the appetite psychic secretion. Furthermore, these tests show that the effect of these tonics on the gastric secretory mechanism in man and dog is nil. He says these tonics are still common "home remedies" and favorite "drug counter prescriptions." These tonics are given to convalescents who would continue to improve, tonic or no tonic, and

the tonic, not the recuperative powers of the patient, gets the credit.

But even if the bitters have no direct action on gastric secretion and digestion, and no appreciative indirect action on the secretion of the gastric juice, may they not be valuable aids in expelling worry and in implanting hope and good cheer in the mind of the patient? Cushny states that this is their main, if not their only value.

These bitter tonics, if used at all by gastro-enterologists, are employed mainly as flacibos, not as stimulants to the secretion of the appetite. In digestive diseases, if the rational procedures are taken in treatment, the use of these bitter tonics is entirely uncalled for.

R. F. CHASE.

(Boston Medical and Surgical Journal, Oct. 1, 1914)

X-Ray Evidence in Early and Latent Cancer of the Stomach.

By DR. F. W. WHITE AND DR. F. D. LEONARD, BOSTON CITY
HOSPITAL, BOSTON, MASS.

The material for this conjoint study consisted of 118 patients with suspected cancer of the stomach observed within the preceding eighteen months. 33 cases of advanced cancer are excluded. Of the 81 cases remaining at the conclusion of the study 1 or (2) is classified as early cancer, 6 as latent cancer, 62 as negative, and 12 as doubtful. In 33 of the 40 cases of proved cancer, the diagnosis was definitely made by modern clinical methods of diagnosis, the X-Ray examinations proving to be merely confirmatory. In 34 operated cases, a correct diagnosis was made by clinical methods alone in 83% and by clinical methods and the X-Ray in 89%, i. e. in 6% the X-Ray furnished additional aid in diagnosis. As to early cancer, their faithful search has given little result, because the earlier the cancer, the less clear the picture with the X-Ray, yet they believe the X-Ray will occasionally aid in the direction of early cancer, (if the X-Ray work is done by an expert). For the detection of this condition, a few routine plates and fluoreoscopic examinations may not be enough.

In 6 cases of latent cancer, the X-Ray was of much help in detecting and locating the lesion. The value of the diagnosis to the patient, however, was limited to the fact that the lesions discovered, were large and inoperable. In 63 cases in which a normal picture of the stomach was obtained by the X-Ray, no cancer has been proven to exist, hence the X-Ray examination is valuable in the exclusion of cancer.

Partial summary: In the very large majority of cases of gastric cancer as usually seen by the consultant, if the stomach is thoroughly examined for secretion, motility and bleeding, the X-Ray evidence will merely confirm the diagnosis already made. X-Ray evidence has its

limitations. It is almost needless to say that we have studied the X-Ray findings in connection with other clinical data and have not attempted to build a diagnosis on *X-Ray data alone*.

This contribution, coming as it does from the hands of an experienced internist, and a röntgenologist, who is an expert in this line of work, is of especial value, because we are given an unbiased opinion of the value of X-Ray examination in gastric cancer. This study should go a long way in offsetting the extravagant claims made for this method of diagnosis by some over enthusiastic röntgenologists.

I would particularly call attention to these facts as set forth in this article. First: that really helpful X-Ray work is to be obtained only from a röntgenologist who is experienced in this particular line of work; second, that, even with expert X-Ray work, this method of diagnosis is *not* an *independent* one, but is to be employed in conjunction with clinical methods; third, that in the very large majority of gastric cancer cases, X-Ray evidence is merely confirmatory of that obtained by modern clinical methods.

R. F. CHASE.

(The Southern Practitioner, February, 1915)

A Note on Adrenal in Chloride in the Treatment of Spasmodic Asthma.

In the "Lancet" of August 15, 1914, Waller states his experience with this agent. He uses Parke, Davis & Co.'s solution of 1 in 1,000, with 0.5 per cent. chloretone, in initial doses of 5 to 6 minims.

The immediate effect is pallor and a small, rapid and slightly irregular pulse. To use one patient's own words, he felt "a little cold, and inclined to shiver, somewhat shaky in the knees, and a peculiar empty feeling in the chest." These symptoms soon pass off, to be followed by a delightful sense of relief from the dyspnea and a desire for sleep. The sleep is light, refreshing and dreamless. Sometimes two injections have been given in twenty-four hours to the same patient.

It has been observed that, whereas the initial dose necessary in a given case is 5 to 6 minims, subsequent doses need not be so large. In a chronic case, 1 to 2 minims will often produce the same result.

In animals, the continuous administration of large doses of suprarenal extract is followed by arterio-sclerosis. But there is nothing to show that, in man, the use of the dosage recommended is so followed. Waller has always injected the preparation subcutaneously, never intravenously, and he has never found that any benefit was to be obtained by even quite large doses given by the mouth.

C. R. BURR.

(Medical Record, Jan. 15, 1915)

A New and Greatly Simplified Method of Blood Transfusion. A Preliminary Report.

BY RICHARD LEWISOHN, M. D., N. Y.

The rapidity with which blood clots outside of the body has been the great handicap of blood transfusion.

Dr. Lewisohn, in his experiments with sodium citrate as an anti-coagulant, has found that the amount of sodium citrate necessary for the purpose is very small, only 0.2 per cent.; that the tests of the coagulation, after the introduction of the sodium citrate blood mixture, show that the coagulation time in the whole blood volume of the body is not only not retarded, but actually hastened, at least immediately after the infusion; that the dogs showed absolutely no ill effects from three doses of sodium citrate, as was to be expected.

The technique is the following: Allow the blood to run through an ordinary cannula into a glass jar, containing 5 c. c. of 10% sodium citrate solution, stirring with a glass rod to effect a good mixture of blood and citrate solution. The blood is then poured into an ordinary glass funnel, which is connected with the other cannula by a piece of rubber tubing. The whole procedure takes about five minutes.

Dr. Lewisohn has used the method on two patients without any untoward symptoms.

M. A. WEBBER.

(Medical Record, Jan. 23, 1915.)

Twilight Sleep in the Home.

BY KENNETH F. JUNIOR, M. D., BROOKLYN, N. Y.

Believing this treatment, with the added employment of spartein, a valuable addition to obstetric practice, Dr. Junior resolved to test its application in a case of labor in an ordinary house. It was entirely successful, even without graduate nurse.

With proper care, the twilight sleep treatment, to the doctor who understands his business, is simple and perfectly safe for the patient; it does not interfere with the natural course of labor; it does not make difficult labor any less difficult. It does relieve the mother from suffering in difficult labor; there lies its value.

One of the writer's more recent cases:—The doctor arrived at patient's side to find her in a faint from exhaustion caused by the preliminary pains. He put her at once to bed and administered a grain of spartein sulphate, one and one-half c. c. of scopolamine, and one c. c. of narcophen. The pulse and respiration remained normal during the entire labor. She dozed and slept between the pains. The pains were

strong and very efficient as the doctor was at the house only three hours.

There had been no amnesia, light sleep between pains, consciousness of labor, except of the third stage (when a few whiffs of chloroform were given) but no suffering at all.

M. A. WEBBER.

The Harrison Law a National Obligation.

"Both newspaper comments and professional criticisms indicate that there is much misunderstanding of the Harrison law, which has just gone into effect. Many physicians have not fully grasped its purpose. A brief statement of the history of the law may, perhaps, be of value.

"The Harrison law," says *The Journal of the American Medical Association*, "is not the result of any sudden spasmodic impulse on the part of Congress. It is, on the contrary, a part of a carefully considered program for the control of the traffic in habit-forming drugs and especially in opium. This movement is not confined to this country; it is international, although the United States, it is a pleasure to record, has been the leader in the movement. It has been a part of the established policy of our government since the earliest relations with China and other oriental nations to discourage the opium traffic in the Far East. As early as 1833, a treaty with China forbade any American citizen engaging in the opium trade. In 1906, China began earnest efforts to crush out this evil. To aid her in this, the United States initiated an international movement to secure the co-operation of the leading Western nations. As a result, there met at Shanghai in February, 1909, the representatives of thirteen nations, comprising Austria-Hungary, China, France, Germany, Great Britain, Italy, Japan, the Netherlands, Persia, Portugal, Russia, Siam and the United States. This conference resulted in the establishment of the International Opium Commission, appointed to study the entire question and to submit recommendations. The next step was taken Dec. 1, 1911, when a conference of the powers represented in the Shanghai Commission was held at the Hague. Jan. 23, 1912, the members of the conference signed an agreement for a strict regulation of both national and international traffic in opium, morphin and cocain. To the carrying out of the program for the restriction of habit-forming drugs, not only is our national honor pledged, but also as leaders in this movement, it is the plain duty of our nation to initiate such legislation as may be necessary.

"For the carrying out of our international obligations, three bills were drafted. The first, H. R. 1966, prohibited the importation of opium for any other than medicinal purposes. The second, H. R. 1967, prohibited the manufacture of smoking opium in the United States. Both of these bills became laws over a year ago. As there are only a few firms in the country which import opium and none which manufacture it, these laws affected a limited number of persons and so attracted little public comment. The third bill, H. R. 6282, which became a law Dec. 17, 1914, is the Harrison law, now going into effect. In various forms and under different names it has been before Congress for nearly six years. It does not forbid the sale of habit-forming drugs. Only state laws can do that in this country. It restricts traffic in them to persons engaged in legitimate businesses in order to make it possible to trace these drugs from the importer to the ultimate consumer. The suppression of illegitimate traffic in these drugs can be accomplished only by state laws properly drawn and enforced.

"The object to be attained is the world-wide restriction of the use of opium and cocain to their proper medicinal purposes. In securing this, the sympathy and support of every right-minded man and woman should be forthcoming. But physicians, especially, as those who know better than any other class the dangers and ravages of drug addictions, should endorse and support in every way this effort for the uplifting of humanity, to which our national honor is pledged."

The Wasserman Reaction.

While the Wassermann reaction is considered by many physicians an absolutely accurate test for syphilis, E. L. Keyes, Jr., New York (*Journal A. M. A.*, March 6, 1915), finds some reasons to doubt its being an altogether sufficient index, and says he does not feel justified in diagnosing syphilis by this test alone. This conclusion or lack of conclusion, he says, is unsatisfactory, but it seems to be justified by the following facts: In the first place the Wassermann reaction is performed in many ways, and all of them give accurate results in the majority of cases, but no two of them exactly agree. All of them give a certain small percentage of positive with patients who have no history and present no symptoms of syphilis; its findings vary inexplicably in certain cases from those of the luetin test and the lymphocyte count, the globulin test, and the Wassermann test of the cerebrospinal fluid. In the third case the reaction is known to be positive in certain other diseases, and with certain technics higher than with others. Whatever the technic employed, the use of alcohol by the patient may render the blood negative, and the presence of acidosis in a non-syphilitic makes the blood positive, as has been demonstrated by Richards. Only recently he had an experience with forty patients of a tuberculosis hospital in whom the Wassermann reaction had been reported positive. Thirty of these showed certain positive or clinical evidence of the disease. Ten of them failed to show syphilis; the blood was then again examined, both in the same laboratory and in another. Those in the same laboratory reported them all with positive reaction, while that of the other was quite different, and the worker, who obtained only one positive out of the ten, was not willing to assert that to be reliable. Such differences must be settled. Keyes says, by the collaboration of skilled clinicians and skilled laboratory workers on a large series of normal individuals as well as syphilitics. As regards the cure of syphilis, Keyes is dubious as to the value of a negative Wassermann, and his general conclusions as to the subject are given as follows: "1. A negative Wassermann is not sufficient evidence of the cure or absence of syphilis. 2. A positive Wassermann, unsupported by clinical evidence, is not sufficient evidence of the presence of syphilis. 3. A positive Wassermann does not prohibit matrimony. 4. A fixed, positive Wassermann in the later years of the disease does not inevitably point to the prospect of grave lesions. 5. A negative Wassermann after salvarsan, in the first year of the disease, does not mean that the patient is cured, or that lesions will not reappear before the reaction again becomes positive. 6. The return of chancre, glands, eruption and positive Wassermann reaction, a few months after control of the disease by salvarsan in its first few weeks, does not prove reinfection."

Book Reviews.

New and Non-Official Remedies.

Paper bound copies, \$50; cloth bound, \$1.00. American Medical Association, 535 No. Dearborn St., Chicago, Ill., Publishers.

The new 1915 edition of *New and Non-official Remedies* has just come to hand and it is a book which every physician should have in his office.

It gives a description of all the worth-while proprietary and non-official remedies now on the market, also a comprehensive and trustworthy discussion of the composition, source, properties and dosages of proprietary remedies.

This book also contains a general discussion of the comparative value of the newer remedies with the established drugs, which they are designed to displace, also a list of references to discussions of

articles not admitted to New and Non-official Remedies, which have appeared in the Journal of the American Medical Association, so that the physician may readily obtain information in regard to the many nostrums which are exploited to the medical profession.

This work truly demonstrates the value of the Council on Pharmacy and Chemistry and reflects great credit to this body.

A Manual of Obstetrics.

Edward P. Davis, M. D., Professor of Obstetrics in the Jefferson Medical College, Philadelphia, Pa. W. B. Saunders Co., Philadelphia and London, Publishers.

Those who have read Dr. Davis' book on "Operative Obstetrics," knew what to expect from this little manual. Like all manuals it treats of the subject in a condensed and epitomized form, but it is, however, singularly concise.

It is really a pocket edition of a large text-book and everything from the physiology of impregnation to infant feeding is considered.

Relative to the treatment of eclampsia, it is pleasing to note that the author believes in conservatism and elimination as of greatest importance. Dr. Davis mentions especially repeated and thorough intestinal irrigation and resorts to delivery only when it may be easily accomplished, making no reference to accouchment force. In fumi-gating cases, he thinks abdominal Caesarean the operation of choice. No morphia is used according to his text, codeine alone being mentioned, with oxygen and ether as the best means to control the fits. Venesection he believes of prime importance. His allusions to bicarbonate of soda solution in preference to saline is well taken.

In the treatment of placenta previa, Dr. Davis seems to favor abdominal Caesarean section in the majority of cases, although he cites in detail the treatment by Braxton Hick's method.

His chapter on puerperal sepsis is excellent, especially his treatment. The man who is interested in midwifery may, with profit, add this little book to his library. I believe that he will often look to it for aid. Dr. Davis is well known by reputation and his Manual of Obstetrics does him credit.

A. P. LEIGHTON, JR.

Differential Diagnosis. Volume II.

Published by W. B. Saunders Co., Philadelphia. Octavo of 725 pages, illustrated. By Richard C. Cabot, M. D., Professor of Clinical Medicine, Harvard Medical School. Cloth, \$5.50 net; half morocco, \$7.00 net.

There is reason for regarding Boston as the home of case-history teaching in medicine. The pioneer work of the Harvard Law School—where for many years, in the face of opposition and even of ridicule, case-teaching had won its way to recognized success—suggested to a student in the Harvard Medical School the possibility of applying similar methods to the teaching of medicine. Walter B. Cannon, now a professor, is accredited the father of the case-history method in medical teaching.

Cannon's idea was promptly put into practice in the teaching of surgery by Burrill and Blake, in pediatrics by Morse, and in medicine by Cabot. Other Boston men have written and published volumes of case-histories—Dr. Taylor in Neurology, the late Dr. Mumford in Surgery, Dr. De Normandie in Obstetrics and Dr. Green in Diseases of Women. That the idea is spreading and is finding favor, may be inferred from the fact that Dr. Hugh Young of Johns Hopkins has in preparation a volume of case-histories in Genito-urinary Diseases.

In Medicine, the Case History book, by Dr. Richard C. Cabot, is a volume of 295 pages, the last edition of which was published in 1911 by W. M. Leonard, Boston. It contains the histories of one hundred cases, grouped in eight different chapters according to the portion of the body involved. The classification is chiefly anatomical. Dr. Cabot has also written, upon a somewhat different plan, and for a different publisher, two other history books. Four years ago, Saunders of Philadelphia, published Cabot's Differential Diagnosis, a book of 753 pages, containing an analysis of 383 cases. Here the plan was to use, as the text, a "presenting symptom," comparable to the presenting part in obstetrics, and to group the other symptoms in the case around this most striking feature in such fashion that the whole picture might stand out in sharp relief, for comparison and for discussion. "It trains you so that where a patient comes into your office and says she has *fainting attacks*, for instance, a group of causes shoots into the field of attention like the figures on a cash register."

Volume I of Cabot's Differential Diagnosis has been a stimulating, suggestive and successful book. Volume II, just published (December, 1914), is a welcome response to an encore. It follows the same plan, the "cash register" exhibiting a truly marvelous repertoire. The new presenting symptoms, nineteen in number, are abdominal and other tumors, vertigo, diarrhea, dyspepsia, hematemesis, enlarged glands, blood in stools, swelling of face, hemoptysis, edema of legs, frequent micturition and polyuria fainting, hoarseness, pallor, swelling of arm, delirium, palpitation and arrhythmia, tremor, ascites and abdominal enlargement. To illustrate these symptoms, 317 cases are analyzed.

In his preface to Volume II, Dr. Cabot says, "I have profited much from the study of the index of Differential Diagnosis, by Herbert French and other writers, an admirable book published in 1912, since my first volume appeared." French's is a book of one thousand closely printed pages, useful for reference; but Cabot's book is good to read. A doctor who married a nurse has utilized Cabot, Volume I, for domestic entertainment; husband and wife read the case-histories to each other like detective stories, and challenge each other to tell how the story is going to come out.

ADDISON S. THAYER.

A Manual of Diseases of the Nose, Throat and Ear.

By E. B. Gleason, M. D., Professor of Otology in the Medico-Chirurgical College, Philadelphia. Third edition, thoroughly revised. 12 mo. of 590 pages, 223 illustrations. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$2.50 net.

This is a handy book for students and practitioners, and in spite of its 588 pages is remarkably easy to dip into for accurate information in an emergency or for careful study preparatory to operations. It is to be regretted that although more than sixty pages are given to an unusually attractive account of the examination and treatment of diseases of the larynx no mention is made of the fact of the existence of this organ on the front or in the title of the book. In other words, no one looking for a first rate work on the larynx would think of looking into this book, from its mere title.

Opening this excellent work here and there we find a few items to criticize. Siegle's speculum can be more safely used, in our opinion, by the action of the lips of the surgeon applied to the tip of a rubber tube, than by the rubber bag depicted in the sketch. "Nasal hydro-rhœa," contains no suggestion that it is a condition frequently observed in women at the climacteric. "Aerial conduction," is mentioned as "superior" to "tissue conduction," yet it seems as if "bone" conduction were the better word, and "greater" the better adjective. In the subject of furunculosis, we fail to observe that it may be an incipient token of tuberculosis; and that autogenous- or stock-vaccines often prove of the greatest benefit in its treatment.

Artificial perforation of the drum head or enlargement of one already present, has come to be so much a matter of mere routine in modern otology that we believe it proper to suggest, that after a practice of forty-two years, we are confident that although in many cases the hearing seems to have become normal, yet later on the artificially perforated ear first falls early prey to otosclerosis with deafness of considerable degree. Drainage is proper enough, but unless imperative to save life, it is well worth bearing in mind the chances of later destroying the hearing of one ear at least.

One great defect in this book as in thousands of illustrated books of today is the difficulty of finding illustrations referred to in the text. Thus on one page we are told to look for Figs. 137, 138, 213 and 216. If we were only informed in a parenthesis (see pp. 319, 485, 488, etc.), how much time would be saved.

Under the section on mastoiditis, no suggestion is given that more than half of these cases can be spared a dangerous operation by rest, careful douchings, hot water packs, glycerite of carbolic acid into the meatus, and the internal exhibition of urotropin. Conservation may be old fashioned, but with recent observation of a good many instances of facial paralysis following a hasty mastoid operation, it is well to consider the patient's future before operating too soon.

Dr. Gleason has given us an excellent work; let us hope to see the few errors, here mentioned, obliterated in a new edition, and a little more thought given to the omission of the split infinitive. Outside of these minor defects, the book is worthy of the highest commendation.

JAMES S. SPALDING.

Notices.

The Medical Society of the State of New York will hold its hundred and ninth annual meeting in Buffalo, April 27-29. On account of the European War, this will probably be the largest medical meeting of the year, except perhaps that of the A. M. A. in San Francisco. Through the co-operation of the military authorities, the meeting will be held in the 65th Regiment Armory—not the old arsenal, now the City Convention Hall. This armory is one of the largest in the country and will afford accommodations for all activities of the meeting, except the annual banquet. A restaurant will be conducted in the building, there will be ample space for commercial and scientific exhibits, and an abundance of halls for general and section meetings. Even an automobile park will be provided on the armory grounds. No one need leave the building except to sleep, unless possibly to attend lectures to the laity which will be given by prominent visiting physicians and which will probably be held in the Masten Park High School across the street.

The choice of the armory is fortunate in another sense, as indicating the organization of the State Society as an arm of the State government. On the last night of the meeting, a regimental parade and review by Gen. Gorgas will be held.

We venture to assert that this meeting will be conducted to insure greater comfort and convenience to guests than any other gathering of the kind. There will be no waste of time in passing from one section to another, no mental strain in fixing one's attention on gall stones while on the other side of a velvet (?) curtain, some one is discouraging on ventral fixation or an organization of "hundred-point" men is discussing the best methods of selling varnish.

The local committee of arrangements consists of the chairmen of the following sub-committees. Suggestions and offers of assistance will be gladly received. We understand that the annual meeting is entirely self-supporting, from the sale of concessions, so that no financial contributions will be asked.

Registration and Information:—Edw. A. Sharp, Chairman, 481 Franklin Street; John R. Gray, Clayton M. Brown, John L. Butsch, William L. Phillips, Frank N. Potts, Descum C. McKenney, Herman K. DeGroat, William F. Jacobs, Herbert A. Smith, William Ward Plummer, Augustus W. Hengerer, Nadina R. Kavinsky.

A general invitation is extended to all physicians, irrespective of residence.

National Conference of Charities and Corrections.

Chicago, February 11th. Announcement has been made from the headquarters' office of the National Conference of Charities and Correction of the preliminary program for its forty-second annual meeting

at Baltimore, Maryland, May 12th to 19th. The conference will meet under the presidency of Mrs. John M. Glenn of New York, the second woman president it has ever had.

The program contains the names of over fifty leading charity workers and penologists, and it is anticipated the unprecedented social situation of the present year will result in a conference of unique values. The program on "The Family and the Community" will result in considerable discussion of methods of treating individual cases of poverty, as, for example, in a study of "The Psychology of Co-operation." Prof. Henry R. Seager of Columbia University will give an address on the "Causes and Remedies of Unemployment."

The program considers the following subjects: "Children," "Corrections," "Education for social work," "The Family and the Community," "Public and Private Charities," and "Social Legislation."

New and Non-Official Remedies.

During January the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Non-official Remedies:

Hynson, Wescott & Co.: Glycotauro Capsules (half size).

Eli Lilly & Co.: Alcresta Ipecac Tablets.

Merck & Co.: Cantharidin, Merck.

H. K. Mulford Co.: Luetin.

****Program of the Maine Medical Association.***

(INCOMPLETE)

THE SIXTY-THIRD ANNUAL MEETING, JUNE 9 AND 10, 1915.

Subject not announced,	H. R. Farris, Oxford
Subject not announced,	W. E. Gray, Milltown, N. B.
Internal Secretions,	W. Seaman Bainbridge, N. Y.
"Blood Pressure and Some of its Clinical Values,"	C. H. Witherall, Oakland
Subject not announced,	B. F. Bradbury, Norway
"Treatment of Trifacial Neuralgia by Hypodermic Injections of Alcohol,"	W. D. Williamson, Portland

*Members who wish to offer voluntary papers or reports of cases are requested to communicate with the Program Committee, 148 Park St., Portland, Maine.

Chap. X, Sec. 2. All papers read before the Association or any of the Sections shall become its property. Each paper shall be deposited with the Secretary when read.

Personal News and Notes.

Dr. Walter M. Spear of Rockland, has recently been elected a fellow of the American College of Surgery.

Dr. Edward R. Mansfield has given up his practice in Winterport and located in North Haven.



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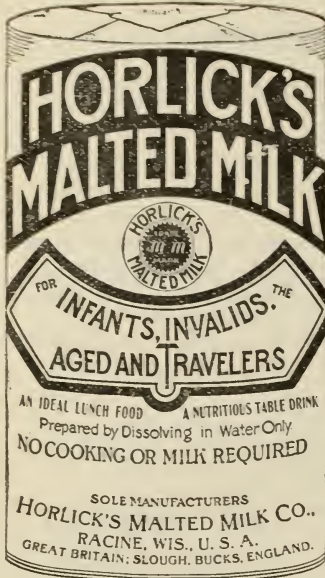
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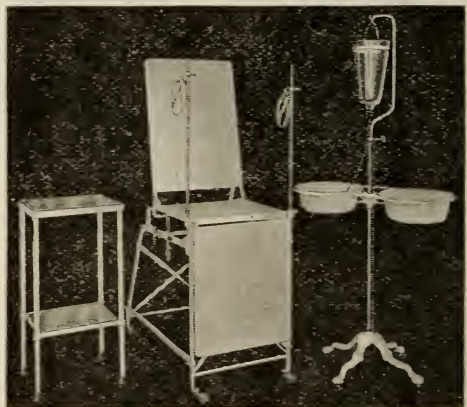
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OF THE

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VOL. V.

APRIL, 1915.

No. 9

*VISCERAL PTOSIS.

BY RICHARD F. CHASE, M. D., PORTLAND, ME.

Formerly Physician to the Boston Dispensary, Instructor in Clinical Medicine
and Lecturer on Gastro-Intestinal Diseases, Tufts College Medical
School, Member Harvard Medical Alumni Association,
American Medical Association, etc.

Probably many members of our profession picture to themselves visceral ptosis as they have observed it in an occasional bad case encountered in practice. Some very likely think of the mechanical condition as they have often seen it presented by the roentgenogram showing the stomach and colon occupying the lowest possible positions in the abdomen. Reported cases of visceral ptosis are almost always of the severer types. For these reasons, I believe that the popular opinion regarding the *degrees* of visceral prolapse and the *severity* of visceral ptosis cases as a whole, is an exaggerated one. Entertaining this belief, and in view of the considerable attention that is being given this subject, especially by certain surgeons, I feel that now is an opportune time to set forth visceral ptosis as it is most commonly seen.

The following data were obtained from an observation of 400 consecutive female patients, 15 to 50 years of age, examined with reference to visceral ptosis at the Boston Dispensary during my 1912 service. Believing as I have for some years (for reasons stated in another article) that slight degrees of gastropnoxis are of little or no clinical significance, and desiring to tabulate only such cases as

*Read before the 62nd session of the Maine Medical Association at Portland, Me., June 11, 1914.

showed at least moderate degrees of prolapse, I have recorded as gastroptosis only those cases in which the lower border of the stomach, after distension, was found one-half inch or more below the navel. Of the 400 patients, in 52 or in 13% such degrees of gastroptosis were found. Excluding cases of dilatation, gastroptosis is considered present whenever the lower border of the stomach is found *at* or below the navel. This condition is reported as occurring in more than $\frac{1}{3}$ of all women — some writers report an occurrence of 60 to 70%. Now, if my figures are approximately correct, they show that in about $\frac{2}{3}$ of all cases considered as gastroptosis the degree of prolapse is less than $\frac{1}{2}$ inch below the navel! But the roentgenologist has recently informed us that "the normal stomach may be found anywhere from slightly above to very much below the umbilicus." If his observations are correct (and it is generally believed they are) then a very large percentage of the cases which have been considered as gastroptosis are not cases of gastroptosis at all, the stomach being within what are now considered the normal limits. As a matter of fact, it is difficult, perhaps impossible, to set any hard and fast rule as to the normal low limit of the stomach.

In 1901, in connection with other tests carried out on thirty-nine healthy male medical students, I found by inflation and percussion (the subjects lying, with head and shoulders well elevated, to enable them to dispose of the salivary secretions more easily) that the lower border of the stomach, in the median line, averaged $\frac{3}{8}$ inch above the navel, the maximum high and low limits being $2\frac{1}{4}$ inches above and $1\frac{3}{4}$ inches below the navel. In sixteen of the thirty-nine subjects the lower border was found at or below the navel. In three it was at the navel and in thirteen it was from $\frac{1}{4}$ to $1\frac{3}{4}$ inches (in one case) below the navel.

Hertz and Morton found in seventeen healthy young men that in the vertical position the greater curvature was invariably below the umbilicus, the distances below varying between 1 cm. ($\frac{3}{8}$ inch) and 12 cm. ($4\frac{3}{4}$ inches), with an average of 5.5 cm. ($2\frac{1}{4}$ inches). Groedel, in thirty-six men and fifty-four women having no gastric disorders, found that the average distance of the lowest point of the greater curvature below the umbilicus was 2.5 cm. (1 inch) for men and 5 cm. (2 inches) for women.

With the subjects in the horizontal position, Hertz and Morton found that the lowest point of the greater curvature was from 2 cm. ($\frac{3}{4}$ inch) to 10 cm. (4 inches) higher than when in the vertical position (showing the effect of posture on the position of the stomach), and they conclude that in most individuals when in the horizontal position (lying flat) it is slightly above the umbilicus.

My observation of thirteen years ago, that the lower border of the stomach averaged $\frac{3}{8}$ inch above the navel (with the subjects in the horizontal position, head and shoulders elevated), agrees very closely with the X-ray findings, with the subjects in the same position. Therefore, it would seem that the correctness of my observations is confirmed, and furthermore that, in inflation and percussion, we have a method of determining the position and often the size of the stomach, as accurate, and, on account of the expense of radiography, more practicable for routine office and hospital practice, than the X-ray method.

From these observations, I am led to consider gastropptosis present only when by any reliable method of examination, the greater curvature of the stomach is found one inch or more below the navel, the patient being in a horizontal position. By reliable methods of examination, I refer particularly to inflation and percussion and the X-ray methods. Of the 52 cases recorded as gastropptosis, in 43 or in over 10% of the 400 patients, gastropptosis of one inch or more below the navel was found. Consequently, according to my observations, if we should accept the position of one inch or more below the navel as constituting gastropptosis (in place of the present position at or below the navel) true gastropptosis instead of occurring in over $\frac{1}{3}$ of all women (as given at present) will be found in only about 10%. We are confronted either by this proposition or by the one showing that in about $\frac{2}{3}$ of all cases now considered as gastropptosis the degree of gastric prolapse is less than $\frac{1}{2}$ inch below the navel. By accepting the former proposition I believe we shall place ourselves on a far firmer basis than we now stand for, judging the relationship of ptosis and symptoms, the indications for treatment, and various other features of the subject. While the position of the stomach per se may not be of much clinical significance, I believe it is evident that some agreement based on recent observation as to what constitutes gastric prolapse, should prevail.

The common and often harmless condition, gastric prolapse, has frequently been mistaken by the general physician for the comparatively rare and usually grave condition, gastric dilatation. The differentiation of these two conditions is readily and easily made, if the proper tests are employed. As a rule, inflation and percussion show the position of the stomach very accurately. (One of the various tests for gastric motility readily determines the presence or absence of gastric stasis, which, if present, means dilatation.) The X-rays are but rarely required to determine either condition.

Nephropptosis was found in 46 of the 52 cases recorded as gastropptosis, also in 50 others of the 400 patients, a total of 96 cases

and a percentage of about 25. According to Glenard's classification there were 46 cases of the first degree, 31 of the second degree, 15 of the third and 4 of the fourth degree. In 11 patients there was double nephroptosis, excepting in these cases a left nephroptosis was not detected. This percentage (25) is smaller than usually found by other observers, it is also smaller than I find in private patients. The condition, however, is a very common one indeed and its usual harmlessness is fairly well recognized. There are physicians who fail to realize this fact, as some surgeons did until they found that even in their occasionally successful operations fixations of the kidney often failed to relieve the symptoms presented. With Dietl's crisis the above operation is surely indicated. But how often do we encounter Dietl's crisis? A warning which has often been given, will, I believe, bear repetition. It is this; unless there is some *particularly good* reason for so doing, never tell a patient she has a prolapsed kidney, because many women have become "nervous wrecks" *chiefly* from dwelling upon the fact that such a condition existed.

Prolapse of the liver was found in four patients. Prolapse of the spleen was found in none.

The position of the transverse colon was not determined, but it is fair to assume that it was low in all cases in which the stomach was low; besides coloptosis may have existed independently. But as with the stomach, we learn from the roentgenologist that the colon occupies a much lower position than we have considered normal, "that it is invariably located well below the umbilicus." If this is so, then coloptosis is by no means as common as we have considered it in the past. Moreover, the angles at the hepatic and splenic flexures are consequently more acute than we have believed, hence this acuteness of angles is not to be looked upon with the degree of apprehension that was accorded it during the earlier work with the X-rays.

For the purpose of comparison I will divide these 102 patients with more or less visceral ptosis into two classes, designating, as enteroptotics the 52 patients with the more general ptosis and as nephroptotics the 50 patients in whom prolapse of the kidneys was the most manifest, the stomachs being as a rule in the normal position.

The average age of the enteroptotics was 38 years, of the nephroptotics, 30 years. Thus it is seen that the patients having the more general visceral ptosis averaged 8 years the older.

90% of the enteroptotics had borne an average of 5 children, while but 28% of the nephroptotics averaged 3 children. The close relationship of multiple pregnancies and visceral ptosis is here strongly suggested.

73% of the enteroptotics had lost an average of 13 pounds in weight. 68% of the nephroptotics had lost an average of 11 pounds in weight. Some writers seem inclined to attribute the weight loss in ptosis patients to the ptosis, but it is well to bear in mind that sufficient loss in weight, regardless of the cause, is invariably accompanied by visceral prolapse. The fact that in certain patients, designated by Rovsing as "Virginal Enteroptotics" who possess the "habitus enteroptoticus" and who have always been poorly nourished, may suggest that the lack of adiposity results from the ptosis, and possibly it may, but if such is the case, it in no way disproves the above statement that loss of weight causes ptosis.

54% of the enteroptotics and but 10% of the nephroptotics had pendulous abdomens. Pendulous abdomens, as has been shown in the enteroptotics and by their comparative rarity in the nephroptotics, is an important factor in the causation of acquired ptosis.

Posture of the enteroptotics was: excellent = 0; good in 4%; fair in 70%; bad in 25%.

Posture of the nephroptotics was: excellent in 3%; good in 33%; fair in 50%; bad in 14%. Posture as a causative factor in ptosis may be deserving of the great prominence it has received at the hands of some writers, but *surely* no one can expect to cure ptosis by attention to posture alone. In my mind correction of bad posture, so highly desirable in any condition, is but *one* of the many details in the treatment of ptosis.

10% of the enteroptotics and 25% of the nephroptotics wore corsets in a harmful manner. The misuse of corsets, especially among the well-to-do, is not as prevalent as formerly, owing to the prevailing style of wearing the corset, yet in $\frac{1}{4}$ of the younger class of patients under consideration it is seen that the corset is yet to be considered as a causative factor of ptosis. 20% of each class had some organic disease outside of the digestive tract and about 10% of each class had undergone some abdominal operation.

In comparing these two classes of patients, it is seen that the more general and severer degrees of ptosis occurred in the older patients, in those who had borne more children, who had more pendulous abdomens, poorer posture, etc., while the younger class, the nephroptotics, (7 under 20 years) presented far better physical appearances and but slight degrees of ptosis.

Symptoms: A record was kept only of those symptoms most often encountered in ptosis cases.

Gastric symptoms were present in 20% of the enteroptotics and in 25% of the nephroptotics.

Backache occurred in 24 of the enteroptotics and in 18% of the nephroptotics.

Abdominal dragging occurred in 16% of the enteroptotics and in 10% of the nephroptotics. Nervous symptoms were present in 20% of the enteroptotics and in 8% of the nephroptotics.

Constipation occurred in 68% of the enteroptotics and in 55% of the nephroptotics.

Remembering then that the class of enteroptotics under consideration represents more than the average degrees of ptosis (as I did not record cases of gastropptosis of less than $\frac{1}{2}$ inch below the navel), that 20% of them had some organic disease outside of the digestive tract, and that 10% of them had undergone some major surgical operation, yet even under these conditions, constipation excepted, no individual symptom noted occurred in 25% of these patients and *in but two* patients were all of these symptoms present. However surprising this statement may seem, its correctness is in a measure substantiated by the figures of S. Fenwick of London. "Out of 500 consecutive cases of dyspepsia in hospital practice," he says, "the digestive disturbance was dependent on gastropptosis in 3%, while in private practice it was 17.6%." Practically all writers on this subject, while not giving figures, agree that very many cases of ptosis have no symptoms referable to the mechanical condition. I trust the above figures may aid in emphasizing this point.

To show that both the percentage of ptosis cases and the percentage of symptoms depends largely upon the class of patients with which one has to deal, I will give you some figures from my private records. In order to obtain 52 cases of gastropptosis of $\frac{1}{2}$ inch or more below the navel in women, I was obliged to consult the records of but 129 consecutive female patients, thus giving a percentage of 40 as compared with an occurrence of 13% of like cases in the clinic. Moreover, I should estimate that 75% of these private patients had digestive symptoms (as against 20% in the clinic); it was mainly on account of such symptoms that these patients were referred to me. But let me assure you that, in my opinion, only a small portion of these symptoms could be attributed to visceral ptosis.

I have selected the clinic cases as the basis of this paper, because they, better than any other class, represent the general run of such cases as seen by the general practitioner.

Having considered in this group of cases the degrees of prolapse of the various organs, *some* of the etiological factors, the general physical conditions and the symptoms presented by the patient, one should be enabled to intelligently decide upon the general treatment

to be pursued, and to determine in what cases no treatment for the ptosis itself is needed.

In this group of patients, in fact in enteroptotics as a whole, I trust it has been made evident to all that a very large portion need no treatment whatever for the ptosis itself, excepting the general prophylactic measures which may and should be applied to all women.

But don't let me be misunderstood as making light of the condition enteroptosis. In a certain percentage of enteroptotics the internist, as well as the surgeon, encounters bad cases, and I believe all of us are thankful that no greater number is met. The percentage of such cases is, however, a very small one. Most enteroptotics are, I believe, very well cared for by the general physician.

The time at my command does not permit me to speak of the medical treatment of this condition. So much, however, has recently been written pertaining to the surgical treatment that I actually fear some men may have been led to look upon ptosis mainly as a surgical condition. While such is *far* from being the case, and while in my experience surgical interference has rarely been indicated, I prefer that you should be advised on this feature of the subject by one who is far better qualified than myself to give such advice. I shall quote from a recent article on "Surgery and the Ptosis Problem" by Dr. Fred B. Lund of Boston. Dr. Lund, after considering ptosis in general, including also Lane's kink, Jackson's membrane, the cecum mobile, etc., and the various operations devised for these conditions says,

(1) Now as practical surgeons, what are we to get out of this mass of contradictory material?

(2) In the first place, a most wholesome respect for the human organism as a whole, and the realization that measures dietetic, medicinal and gymnastic addressed to the condition *as a whole*, are to be adopted for the majority of cases.

(3) For ptosis itself, no surgery at all.

(4) For constipation, when due as it frequently is to kinking of the colon, to congenital conditions, acquired adhesions, or ptosis, or a combination of any two or all three of these factors, a rational surgical therapeusis may be cautiously applied.

(5) The habitual use of laxatives, if the patient is in fair health and able to work, I do not consider a fair indication for operation.

(6) The history must show constipation unrelieved by medical measures and referred by the symptoms and the X-rays to a certain point and really dangerous to health, if not to the life of the individual.

(7) He says: Clark puts it very well when he says that symptoms and severe symptoms alone form an excuse for operating.

(8) Ptosis and kinks of the colon of all degrees may be shown by the X-rays, but unless associated with most definite symptoms of stasis would best be left severely alone. (In other words don't rely entirely on the roentgenologists' report for the indication to operate, as I fear many surgeons are inclined to do.)

(9) For the cure of gastric symptoms and dilatation accompanying ptosis of the stomach, many surgeons in various parts of the world believing that the cause of symptoms was kinking of the duodenum, have performed gastroenterostomy with disappointing results."

In closing I will quote the indications for surgical interference in gastropotosis and nephroptosis as given by Dr. J. A. Blake of New York and endorsed by Ochsner, the late Dr. Richardson and others.

(1) It must be determined that the patient's suffering is due to enteroptosis.

(2) It must be clear that the condition cannot be relieved without surgical interference and

(3) It must be reasonably certain that the condition can actually be relieved by a surgical operation.

DISCUSSION OF DR. CHASE'S PAPER.

THE PRESIDENT: Dr. Robinson of Bangor will open the discussion.

DR. ROBINSON: I am extremely delighted to hear this paper. I had feared that I was getting to that stage when I could not take up new things, for the reason that I had not found a case of visceral ptosis that I thought I could remedy by operation. I am glad to hear what Dr. Chase has said in regard to it, and that the feeling is not entirely my own. In this matter, we are going through just what we went through in the cases of prolapse of the uterus. First, they began with pessaries, which in a majority of cases would prove fairly comfortable, but which were inconvenient. Then came Alexander's operation, shortening the round ligaments, and pulling upon them as guy ropes. That would help in some cases, provided there were no adhesions holding the uterus back. Then they began to go inside and do ventral fixation and ventral suspension, and plicating the round ligaments and finally the Watkins Wereheim operation. The very fact that changes have been so rapid and constant is sufficient indication that no perfect operation for this class of cases has yet been invented, one that will relieve all the symptoms. We went through with the same thing in ptosis of the kidney, first trying the supports. A good many of those cases would not need anything if the patients themselves did not know that they had this ailment; but once in a while the kidneys would become so movable that patients would find it out themselves, and then something had to be done. They began first, as you know, by putting a little stitch in the back, and the fact that they were operated on, was sufficient for the most of them. Even the fact that it tore away in a little while did not make much difference with them, if they did not find it out. Then came the other operations that have gone on up to the present time. The operation that Guiteras

makes apparently holds it in place permanently, and relieves all the symptoms that come from the ptosis. Now comes the ptosis of the stomach and of the intestines, and we are going through exactly the same process again. The first recourse is to the external supports; and those, I suppose, are of very great benefit, as they are in those other cases. I think one trouble has been suggested by this paper, and that is that too much stress has been put upon the fact of the ptosis alone. If they found the ptosis, all these symptoms were due to that—*post hoc, ergo propter hoc*. That has always been a very fallacious form of argument, and yet a very common one. For instance! I graduated in medicine from the medical school, and went into practice thirty-three years ago. In that third of a century there have been greater advances in medicine and surgery than in any other third of a century in the world's history, and yet I would not give the former as entirely the reason for the latter. So in this ptosis, the fact of the falling is not a reason for all the symptoms. In fact, as the Doctor has shown by his paper, it is very seldom that the ptosis alone is the cause of it. As I have stated we began by using external supports, and then it occurred to somebody to stitch the stomach up, and the first operation, as you know, was to bring it up to the front of the abdominal wall and put a stitch in. Well, it seemed to me, with an organ as movable as the stomach, that at one time is empty and weighs but little, and at another time may be full of corned beef and cabbage, or the ingredients of a great banquet, that there would be too much strain on the stitches. It never seemed to me that they would hold, and I do not believe they ever did. In fact this was soon given up, and then operations began to plicate the lesser omentum. They did not seem to be wholly satisfied with this and now they are plicating the larger omentum; and I believe Lane of England has taken out the whole colon, and made a short circuit with the small intestine. While it seems to me that all these things may be necessary in the very extreme cases, when nothing else has proved to be of any use, I do think that the ptosis itself, as a cause of the symptoms and of the sickness, has been very much exaggerated. I know that reasons were given for it by some to the effect that we have changed from walking on all fours to standing erect; but it seems to me that that is rather far-fetched, as the most of us cannot remember so far back as that, and in the earlier days, so far as we can read history, there were no such diseases. It is rather a disease of modern life. Anyone who has had much experience in abdominal operations knows how difficult it is, when the patient is coughing or straining, to keep those intestines in, with a hole only two inches wide; and he can also see the practical impossibility of keeping those small intestines out of the pelvis, no matter what position you are in. I do not believe that "poise" can have any particular effect on that.

I have been particularly delighted to listen to this paper, bringing out this fact as it does; and I think it will do much good by giving us the results of his studies in a scientific way, thus preventing members of the profession from going on in the way they have started and performing many needless operations. I personally thank the Doctor very much for it.

DR. WEBBER: Mr. President, and Gentlemen—I can add nothing to what has already been said. It pleases me to have heard the paper, and I am gratified that it takes the position it does. It has seemed to me for a long time that the subject of ptosis was a medical one in a great majority of cases, and I feel pleased to have this emphasized here to the profession at large and brought into that category of cases. It seems to me that the impression about

it has been that the minute one discovered a little ptosis of any abdominal organ, the case was immediately surgical; and I feel, as the writer of the paper has pointed out, that that is a great ways from the truth. The important feature, it seems to me, is to impress on our minds the general care of the patient rather than a surgical operation in these cases.

THE PRESIDENT: This matter is now open for general discussion, gentlemen.

DR. STURGIS: I thought I would come early, so as not to be charged with telling the last story. I have a patient who is ninety years old. I began the practice of medicine eighteen years ago, and one of the first things I had to do was to get a stomach tube for this same patient. We had a special tube made for her with a 30-inch lumen. As you know, stomach tubes are made with a marker 18 inches from the end. We can fill her stomach when we introduce that marker to her teeth line with water or anything else. She cannot start a return flow from that stomach until 42 inches of garden hose are put in beyond those teeth. Now I do not know where it goes to. She is only about five feet and three inches tall. I know this much! She consented last Sunday to have an X-ray taken, the first time she has consented to anything of that kind. I went out and got her in the country and brought her in to the hospital, and Dr. Cummings took the X-ray with the stomach tube in place. He will give you this interpretation of the position of that stomach tube. Now she washes her stomach out anywhere from once to five times in the twenty-four hours, according as the undigested food requires her to do so. She has a sensation peculiarly her own, that she had better rid herself of some of the stomach contents. She takes a two-quart dipper, full of warm water, and a stomach tube, and does it herself. She has been doing that during the eighteen years I have been in practice, beginning it just before that time. Dr. Weeks saw her, and I understand he suggested the treatment. Dr. Gordon and others here in Portland saw her at the hospital away back then. The stomach tube does not siphon, does not start the return flow, until 42 inches of rubber tubing are in beyond her teeth line. Someone asked me the other day why I did not do an operation. I said that if she was young, I suppose we would do a gastroenterotomy; but at ninety years of age, and apparently a well woman, I thought I would let her alone.

DR. CUMMINGS: Mr. President—Dr. Sturgis wished me to give my interpretation of the X-ray which I took last Sunday. The tube passed down at least six inches below the umbilicus before it took the first turn. Then it took a turn to the left, to her right, and went around, as I remember, two or three times, and then started going down again. It was coiled up there two or three times before it seemed to reach the lowest part of the stomach. The stomach was way down in the pelvis. I should judge it was as far down as it could go.

DR. TWITCHELL: Mr. President—I have been very much interested in this unusually concise, rational and clearly stated paper. The subject is one of great interest and of very great importance to the surgeon, chiefly from the fact that the surgeon has not been able thus far to give the relief that the laity and the family physician expect him to give these patients. I think it is usually considered that cases of pure ptosis of the abdominal and pelvic viscera are almost never surgical cases; but there is one fact that brings them into the surgical class, and that is mechanical obstruction. If we have obstruction in the duodenum, for instance, from ulcer or new growths, or if we have obstruction in other parts of the viscera from kinks or adhesions, then clearly those cases fall within the surgical category. I have been very much interested

in my abdominal work in observing the frequency of ptosis of the different organs of the abdomen. It is the custom now, in fact it is obligatory on the surgeon when he makes an abdominal incision, if the circumstances of the patient will permit, to make a careful exploration for the purpose of seeing whether there is any defect or abnormality about the other organs of the body than those with which he is at the time dealing; to see, for instance, if the patient has two kidneys; if the kidneys are movable; if there are gall-stones; if there can be found any growth about the duodenum or other abdominal organs, if there is much ptosis of the different organs; and I have been struck by the frequency of ptosis, or movability rather, of the kidneys, particularly the right. Now when the patient is in a prone position, as when on the operating table, of course the kidney, even though movable so that it would drop down when the patient was in an upright position, is usually back in its proper place; and it is not sufficient to determine whether it is movable or not, merely to pass the hand up and manipulate the lower end of that kidney, but one must pass the hand over the top of the kidney, and see if it can be pushed down. I have often found it possible to pull a kidney down almost to the brim of the pelvis.

Another very common thing we notice is the low position of the transverse colon, hanging over the brim of the true pelvis. We notice also that almost never do we find any contents in the transverse colon; and, although the kinks are very acute around the hepatic and splenic flexures, yet they seem to offer no obstruction to the emptying of the intestines. We often find a ptosis of the transverse colon and the stomach due to adhesions of an abnormally long or heavy omentum. In those cases, particularly those who have had pelvic peritonitis, the lower end of the omentum may become adhered to the fundus of the uterus or other pelvic organs. Now remedying these conditions gives the patient very considerable relief. The most of these cases should be treated, I believe, medically, and this is a class of cases where we can do a great deal if we follow up the after treatment. I was very much struck with what Dr. Cabot said yesterday as to the necessity of following up the after-treatment of patients who leave our hospitals. It is not sufficient to say to these patients, "you have been some ten or fifteen years getting into the condition in which you are now, and the operation which I do upon you is not going to place you at once in perfect health, in the health you had fifteen or twenty years ago. It simply removes an obstacle to your regaining that health. It is a matter of persistence on the part of yourself and your physician before you will acquire perfect health." You tell patients that, and they immediately go out and forget it. I often have patients come to me on whom other surgeons have operated three or four months before, who complain bitterly because they are not as well as they expected to be; and I have no doubt other surgeons see my patients in the same condition. Now we ought not merely to make that statement to these patients, but we ought to reiterate the statement to them. We also ought to make the statement very emphatically to the family physician. I was very much impressed by a paper read by a Boston orthopedic surgeon a few months ago before the Cumberland County Medical Association—Dr. Goldthwaite—in which he spoke of the postural treatment of these cases; and he called our attention to the fact that in those patients who come to us, if we notice that they have an abnormal posture, we will most always find that they have an acute angle of the costal region; that they have caved in, so to speak; and, when they do that, they roll the liver down and the ligaments attached to it;

that necessarily pushes down the kidney with the liver, and all the viscera below the liver and in front of the kidneys are pushed down in that way. Straightening those patients up, getting them in a better posture, is one of the first things to do in such cases. He also emphasized the fact that such patients when they come to us are in a condition of tired muscles. It is of no use to put those patients on to gymnastics at once, because those muscles must first be rested. Therefore he puts on some kind of a mechanical apparatus which will set those muscles at rest, or else puts the patient to bed in the dorsal position for a time until those muscles are rested. Then, following that treatment, he gives them the gymnastic work which will strengthen those muscles.

Another method which is very efficacious is to give them abdominal massage, placing the patient on his back, massaging his organs all back into place, and then putting on a proper abdominal support or corset. In this way we can do a great deal for these patients. We must also do what Dr. Cabot impressed upon us so forcibly. We must treat these patients psychologically, and get them into a condition of mind where they will be masters of their own nervous systems.

DR. GORDON: Mr. President—I want to say just a word on this matter. I have known for several years Dr. Chase's views upon this subject, and what his experience has been in collecting the data he has given us here today. Now I, with everybody else, of course, have done more or less of the operation for nephroptosis. I have done it in cases where I know positively, so far as I can know anything, that the operation absolutely cured the patient. What I mean by that is that the symptoms were all relieved, and staid relieved after the kidney was put in place. Those were cases of extreme nephroptosis, where the kidney came down into the pelvis, practically, or to the brim of the pelvis, and where the patient suffered continually, and was always relieved by some temporary arrangement which brought the kidney into place and kept it there. In some cases I have seen positive results in the operation for fixation of the kidney; in other cases I have seen absolute failure so far as relieving symptoms are concerned, which may or may not have been due to prolapse of the kidney. We supposed they were; everything pointed to that; but some of the cases were unrelieved. Therefore, within the past few years I have felt, knowing what was being done medically with these cases, that perhaps a great many of the cases of nephroptosis might just as well be left alone; or, what seems to me to oftentimes relieve, fitting an ordinary band to the patient. Then, if the case is one where the kidney is freely movable, just take a pad, such as Frye has always kept, and place one under the band, and that in many cases has relieved the symptoms entirely. I have one case under observation now, although the patient is practically well, where the stomach was very much disturbed. The gastric symptoms were entirely unfavorable. On examining her for the first time, I found a movable kidney. I adopted that method of treating her, and she is now, after four months, absolutely relieved of all permanent stomach symptoms. Therefore, while I am sure that we have done more or less good in some of these cases of prolapsed kidney surgically, I am sure that some of them have been failures in attempting to fix them by operation.

As to the other cases of visceral ptosis, I have had very little experience in any surgical way. I am sure that this paper is in the right line, and I am very glad indeed that we have had it. I am very glad that he has given his statistics; that he has given cases; that he has given positive things that we

can look at, talk about, and consider. To my mind, it is one of the vaulable papers of this exceedingly interesting meeting of the Maine Medical Association.

THE PRESIDENT:—There is ample time for discususion, gentlemen, if there are others who wish to be heard. If not, I will call on Dr. Warren.

DR. WARREN: Mr. President—I was going to ask Dr. Chase if he would not refer to the prune question.

DR. CHASE: Mr. President—From what Dr. Warren has indicated to me, I think he had better give his experiences. I think they would be more interesting than anything I could state to the Association.

I think there is nothing further to be said. I am very glad to learn that the views on this subject, expressed by the speakers, so nearly coincide with my own. Coming here where so many men do surgery, I had anticipated that I might hear something different.

THE INTRINSIC VALUE OF TOBACCO.

BY C. M. PILLSBURY, M. D., SACO, ME.

The most difficult task in intellectual philosophy is to convince men of a scientific truth that is contradicted by their own senses. Education prejudices, and environments have indisputable influence in determinations arrived at, and opinions given, by mankind. Whatever we note, transpiring daily before our eyes, makes an indelible impression, and often gives temerity to our resolutions and acts.

(The contemporaries of Galileo, confounded and maddened with the demonstration at the Leaning Tower of Pisa, which established the first principles of dynamical science, confuting the universal law, "that heavy bodies fell with velocity proportional to their weight," all denounced this dictum of the greatest of experimental philosophers as the vagaries of a mad man, and publicly hissed him at his lectures until he was compelled to resign his professorship and retire from Florence. From time immemorial this law had been looked upon as a maxim and no argument, founded upon abstract principles, had any force. At length science dissipated the darkness of ignorance and superstition and by degrees, men began to question the testimony of their own senses and reluctantly acknowledged the wonderful truth announced by this great philosopher.)

That, which has been handed down from the remotest ages of antiquity as a self-evident truth, and is constantly being demonstrated

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to us by our natural senses, becomes a verity, entrenched behind bulwarks not easily dislodged. Thus we approach the subject matter of this paper, with grave apprehensions of its appreciation and reception in all its details.

Appetites and passions are the predominating elements in man. The most universal stimulus to the former, in all climes, among all nations, civilized and barbarous, educated and ignorant, rich and poor, is tobacco.

Let us divest ourselves of prejudice, pro and con, for the time, while we investigate its history, its botanical and medicinal qualities, its medicinal uses, its value as a luxury, and anticipate, within a reasonable probability, its physiological effects on the human race.

History:

Little or nothing is known of tobacco prior to the discovery of America, and there can be but little doubt that the knowledge of tobacco and its uses came to the rest of the world from America.

History tells us that, "in 1492 a party, sent out by Columbus from the vessels of his first expedition to explore the island of Cuba, brought back information that they had seen people who carried a lighted firebrand to kindle fires and perfumed themselves with certain herbs which they carried along with them." The practice of snuff-taking was observed and described by Raman Pane, a Franciscan, who accompanied Columbus on his second voyage in 1494 and the practice of tobacco-chewing was seen by the Spaniards on the coast of South America in 1502. The term, *tobacco*, appears not to have been the commonly used, original name for the plant and has come to us from a peculiar instrument, used for inhaling its smoke by the inhabitants of Hispaniola. This was a small, hollow tube, shaped like the capital letter Y; the two points of which being inserted in the nose of the smoker, while the other end was held in the smoke of the burning tobacco, and thus the fumes were inhaled. This apparatus the Caribees called tobacco. But in Mexico, Benzoni claims the herb was called tobacco. The tobacco plant was first brought to Europe in 1558, by Francisco Fernandes, a physician sent by Philip II of Spain to investigate the products of Mexico. By the French Ambassador to Portugal, Jean Nicat, seeds were sent from the Peninsula to Queen Catherine in Medice, in 1560.

At first the plant was supposed to possess almost miraculous healing powers and was designated "*Herba Panacea*," and is called by Spencer, "*Divine Tobacco*," and by William Lilly, "*Our Holy Herb Nicotian*."

When this country was first discovered, the tobacco plant was found to be in use among the aborigines. They employed it as an

incense in their sacrificial fires, believing that the odor of it was grateful to their gods. The priests of some tribes swallowed the smoke of the plant to excite in them a spirit of divination, and this they continued until they were thrown into a stupor for many hours, and when they recovered from the toxic influences, they claimed to have had an interview with the devil and he had revealed to them the course of human events. Their physicians also got intoxicated with the fumes and declared that, while under its influence, they gained access to the Council of the Gods, who revealed to them the events of disease.

The American Indians used it in all their religious services and, as a seal consummating all important transactions, they smoked the calumet, or "pipe of peace." In India all classes of both sexes smoke. Throughout China, the practice has been universal from time immemorial; small girls, of eight and nine years, wear, attached to the dress, a small, silken pocket to hold tobacco and pipe; Columbus found all the natives of the West Indies using it.

While the plant came to Europe through Spain, yet the habit of smoking it, was initiated by, and spread through English example. Ralph Lane, the first Governor of Virginia, and Sir Francis Drake brought with them, in 1586, from the first American possessions of the English Crown, the implements and material of tobacco-smoking, which they handed over to Sir Walter Raleigh. Lane is credited with having been the first English smoker and through the influence and example of the illustrious Raleigh, who demonstrated the indestructibility of matter to Queen Elizabeth by the ashes and smoke from his pipe and thus gained a wager from the Queen. He took a pipe of tobacco a little before he went to the scaffold.

The species of *nicotiana* number about fifty but those of which the leaves are used as a source of tobacco are few, with the exception of two species, one, a native of New Caledonia, the other, proper to Australia; they are all of American origin.

Nicotiana Tobacum is the botanical name (which was taken from Nicat, the French Ambassador, who carried it to France from the Court at Lisbon.)

Tobacco, some *materiae medicae* give five preparations: infusion, wine, oil, nicotine and ointment. Barthalow recognized only four, classifying the nicotine as the chief alkaloid. Hare fails to recognize it in his *Therapeutics*, except as he puts it in the list with nervous sedatives.

Unlike most of the herbs, this weed contains three distinct poisonous principals. Shoemaker thus describes the physiological action of tobacco: It is an acro-narcotic poison, acting energetically in small doses upon persons unaccustomed to its use; it is a nauseating

emetic, its action being accompanied by great muscular relaxation; the perspiration and circulation are depressed; the temperature lowered, and the surface becomes cold and moistened with perspiration; the muscles, which at first are relaxed, may be seized later by tremors or clonic spasms or even tonic contractions, followed by paresis of a transitory character. The nervous system is easily affected by the drug. The motor nerves are paralyzed progressively from the periphery to the central organs; a staggering gait and vertigo are prominent symptoms of the toxic action; finally, collapse and death.

(Similar results also follow the inhalation of tobacco smoke, though generally they appear in a much milder form than when the drug is swallowed.)

Poisoning has also followed the application of tobacco leaves to a wound in the case of a child twelve years of age. Nicotine is a most active poison, resembling prussic acid in the rapidity of its fatal effects.

But there are also psychic effects which follow its use; (it allays restlessness and muscular irritability and creates a lassitude which is favorable to the pleasant flow of fancy), so happily illustrated in "The Reveries of a Bachelor."

In what might be called chronic tobacco-poisoning, we have various inflammations of the mouth; epithelial cancer, occasionally, of the lip or tongue; (follicular pharyngitis, bronchial catarrh, rapid, weak, and irregular action of the heart, which may become hypertrophied; dyspepsia and weakness of sight, due to restriction of the field of vision, (scotoma) which may progress to total blindness. Color blindness has been attributed to the use of strong tobacco.)

Muscular weakness and tremors and reduced capacity for physical and mental exercise are common symptoms of an abuse of tobacco. Probably the need of something to restore the nervous system, after using tobacco, is one explanation of the frequent resort to alcoholic stimulants by users of the weed.

The habit of excessive indulgence is especially injurious when the fumes are inhaled, as in cigarette smoking, as by this means, the poisonous products are brought directly into the air cells and are absorbed by the blood. Barthalow states that nicotine diffuses into the blood with great rapidity; he cites the case of M. Faugnies, poisoned by Count Bacome, when death occurred in five minutes; also, one from Taylor, where, after a toxic dose, the patient stared wildly; there were no convulsions and he died quietly in three minutes, heaving a deep sigh in expiring. Barthalow declares that numerous deaths have been caused by prescribing the products of tobacco.

Dr. Copeland reports one incident in which thirty grains, by enema, proved fatal.

Barthalow concludes this summary of the medicinal uses of tobacco, thus: "But we have other remedies, less dangerous, and more pleasant in action."

Shoemaker closes his article on tobacco by stating that it is not used medicinally, its good effects not being of sufficient value to counteract its depressing action on the heart and respiration. (The only practical application," he says, "is to afford an excuse for the prescription of an Havana after a good dinner.")

The influence of tobacco on health and morals, has, ever since its introduction into Europe, been a fruitful subject of controversy.

Burton, in the "Anatomy of Melancholy," gives strong expression to the two views, thus:

"Tobacco, divine, rare, superexcellent tobacco, which goes far beyond all the panaceas, portable gold, and philosopher's stones, is a sovereign remedy in all diseases. A good vomit, I confess, a virtuous herb, if it be well qualified, opportunely taken, and medicinally used; but, as it is commonly abused by most men, who take it as tinkers do, ale, 'tis a plague, a mischief, a violent purge of goods, lands, health, —hellish, devilish, and damned tobacco, the ruin and overthrow of body and soul.")

On the Continent of Europe, the habit of smoking, as a luxury, spread with such rapidity that the Church and State recognized the probable danger and put forth every effort to check the flame of appetite and passion.

Pope Urban VIII and Innocent XI fulminated against it the thunders of the church.

Priests, Kings, and Sultans united the ecclesiastical and monarchical powers ineffectually in staying this mighty tide of iniquity.

King James I, of England, issued what was known as the "Counter Blast" to tobacco, in which he describes its use as "a custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and in the black, stinging fumes thereof nearest resembling Stygian smoke of the pit that is bottomless."

In the early part of the seventeenth century, many of the rulers of Europe issued proclamations, declaring smoking a criminal offence, the punishment for which, in Prussia, was cutting off the noses of the smokers, or driving the pipe stem through them. Sultan Amuret IV, of Turkey, decreed it a crime, punishable by death.

In the southern part of the British Isles, laws were enacted, prohibiting the cultivation of tobacco. The plant, when growing, is always obnoxious, offensive to all the senses, and in this state, would seem to warrant the stigma cast upon it by King James.

As civilization advanced, and science threw its searchlight into

the darkness of bigotry and superstition, clouds of doubt and disparagement gathered on the brilliant horizon of this once enchanted herb, and today it has no part in religion, or science, and the physician's armamentary is complete without it.

What virtue, then, has tobacco in itself to appeal to us? Although discarded by the religious, scientific, and medicinal worlds, yet its devotees, like the sands of the seashore, are numberless, and evidently, unless some *counterblast*, more malignant and convincing than that of King James shall intercept, its acme as a luxury has not been reached.

Let us review the testimony of well-known medical authorities as to the effect of tobacco on the mental and physical.

In a discussion on the subject of disease of the vocal cords, Henzng, before the Twelfth International Medical Congress, in Moscow, said, "Smoking is destructive to singing voices; nearly every singer smokes too much."

Bishop, on the nose, ears, and throat, says, "Chronic pharyngeal catarrh is often associated with excessive smoking."

Roberts, in his "Theory and Practice of Medicine," assigns smoking, acting through the nervous system, as a contributing cause of syncope and palpitation.

Von Leyden, of Berlin, states, as his positive opinion, that tobacco is sufficient, in certain cases, to cause a valvular defect of the heart.

Prof. Mendel, also of Berlin, avers that, in those, who have an idiosyncrasy for tobacco, the use of it produces an arterio-sclerotic condition which may involve the valves of the heart.

Dr. James Welsh, instructor in general medicine at the New York Polyclinic, says: "It is surprising to note how many medical men are of the opinion that tobacco sometimes gives rise to prominent heart lesions." "I was told," says Dr. Welsh, "that a great many medical men in France share the opinion that tobacco has an injurious influence on the circulatory system, and sometimes even produces arterio-sclerotic conditions, involving the cardiac valves, and as the result of this wide-spread conviction, the habit of smoking had become very much less frequent among French physicians."

J. Burney Yeo gives, among the causes of angina pectoris, intoxication that may arise from the use of tobacco.

Favorger, of Vienna, notes that chronic nicotineism is developed after more than ten years of indulgence in strong Havana cigars; in this form, he claims it is more poisonous because two-thirds of the nicotine in tobacco, that is prepared for the pipe, is destroyed in the process of preparation.

Dr. Richardson claimed that tobacco produced various functional disorders of the stomach and heart, inviting debility and irregular action of the senses, dilatation of the pupil, confusion of vision, objective sounds, disturbance of the brain and nerves, leading to over-secretion of the glands, which they control, of the mucous membrane of the mouth, causing what has been described as the smoker's sore throat.

Dr. Pepper states, "The abuse of tobacco, to the depressing effects of which, alcohol is a prompt and efficient antidote, must be ranked as an important, predisposing influence. Both alcohol and nicotine have a deterious effect on nervous nutrition and on the spinal functions in provoking optic nerve atrophy and general paralysis of the vision; if used immoderately, it causes trembling of the hand, and often, writer's cramp."

Butler calls attention to toxic angina, due, sometimes, to over-use of tobacco.

Cooms, of Louisville, considers the use of cigarettes particularly injurious because of the almost universal habit of inhaling their smoke and exhaling it through the nose, thus exciting general irritation and inflammation of the respiratory passages.

"Tobacco," says an eminent physician, "has long been known a cause of ampliopia."

We note, with marked interest, what *Dr. H. A. Hare* says in his "Therapeutics" of 1900, (page 475): "The abuse of alcohol, and, particularly, of tobacco, produces a form of ampliopia, characterized by the development of a scotoma or an area in the center of the field of vision in which the appreciation of red and green is lost, or greatly diminished." Continuing to call attention to the injurious effect of tobacco, *Dr. Hare* says, "Physicians, who are in the habit of seeing young men professionally will constantly have their attention called to a condition of shortness of breath on exercise, palpitation or violent pulsations of the heart, and in some instances, the development of severe symptoms, which, at first glance, may seem to be those of true angina pectoris; in many of these youths, there will be the history of excessive use of tobacco."

The Surgeon General of the *United States Army* reported, "that of the whole number of young men (the flower of the country) who presented themselves for the army, in the Spanish-American War, seven out of ten had heart disease from smoking cigarettes or riding a wheel."

Rear Admiral Seaton Schrader, commander-in-chief of the Atlantic battleship fleet, is of the opinion that cigarette smoking by the enlisted men of the *United States navy* should be discouraged, and

recommended to the Secretary of the Navy that no cigarettes be sold at the ship's store on any of the vessels under his command. He believes that cigarettes impair the health of the men, and do not, in any way, increase their efficiency for duty.

Dr. Osler calls attention, in his work on "Practice," to the second group, cases of neurosis of the heart where some prominent symptoms arise from the action on the heart of tobacco and other substances. He also claims that certain cases of hypertrophy of the heart exist as results of the action of tobacco, etc.

One of the most noted educators, in New England, has declared "That of all the boys under his tuition in a college, only one had obtained and kept an *A* rank from the number of inveterate smokers.

Anticipating presenting a paper on this subject, some time ago, I wrote eight prominent physicians of the United States, and one of Canada, for their opinions, for reference in this paper, of the effects of tobacco on the physical conditions of those using it, and received the following replies, which I will at this point insert in full, giving us the personal views of these eminent physicians, whose skill and wisdom we cannot discount, although we may not share their views in full:—

Dr. M. Allen Starr, of New York, wrote: "In reply to your inquiry about the effects of tobacco, I would say that although I never use tobacco myself, I rarely have ever stopped a patient from using it. In all my experiences with nervous diseases, it is the rarest thing for me to see anyone who appears to be suffering from the ill effects of tobacco, tobacco heart being a rare condition, and any nervous symptoms, arising from the use of tobacco, being in my experience, very exceptional.

When a substance is used universally all over the world, and appears to fill a need, I doubt very much if it can be considered injurious, excepting in excess. I doubt, therefore, whether it is to be regarded as in any sense objectionable."

Dr. H. A. Hare, writes:—"In reply to your letter of the 17th, let me say that the use of tobacco in moderation, by those, who, by reason of youth or idiosyncrasy, are not duly susceptible to it, is, in my opinion, not deleterious and often advantageous. It is prone to be deleterious in those who lead very sedentary lives, and I think it is much less harmful to out-door workers."

The late *Stephen H. Weeks*, of Portland, wrote:—"In reply to your letter of the 17th inst., I will say that in my opinion the excessive use of tobacco (and many persons do use it to excess) is bad.

The spinal cord is that part of the nervous system which suffers most. The symptoms are great nervousness, especially the trembling

of the hands which amounts at times to paralysis agetans."

The late *Dr. M. H. Richardson*, of Boston, wrote:—"I have just received your letter of March 17th. My opinion about the use of tobacco is that it does one no good and does no great harm when used in moderation. I really believe, however, that everybody is better off without it. It stimulates, then depresses the heart; it may cause great irregularity of the heart. I, myself, have given it up recently to very great advantage.

J. Geo. Adami, Professor of Pathology, in Magill University, Montreal, writes:—"The answer to your question must be that we have to recognize an idiosyncrasy or personal factor in this matter of tobacco. I remember, when I was at Cambridge, there was a student, to whom even the smoke of another man, smoking in the same room, was distinctly poisonous and produced grave effects. Others, as you know, can smoke strong cigars, for long years in succession, with little apparent disturbance. Undoubtedly, also tobacco, (which must thus vary for the individual), has an effect upon the vessels, and if repeated, would seem, from experimental evidence, to be a factor in the production of arterio-sclerosis, etc. Here, as in the case of alcohol, I am convinced that no absolute rule can be laid down; that the moderate use may be safely recommended, but as above noted, what is moderation for one individual, is excess for another."

Dr. H. A. Kelly, of Johns Hopkins, writes:—"It gives me pleasure to express my opinion upon the effects of tobacco and upon persons using it.

In the first place, I note that out of a number of boys who begin its use, that a definite percentage use it to excess. Occasionally a life is lost through the effect upon the heart from excessive smoking of cigarettes; very many have the nervous system and digestion seriously upset. Others, through the effect of smoking on their nervous system, and through the association brought about, acquire the habit of drinking spirits, and so, indirectly, are unfitted for life's battle by the tobacco habit.

I notice that it is impossible to predict beforehand just which boys, out of a given number, who will go to excesses in the use of tobacco, and for this reason, I draw the conclusion that the only safe plan is to abstain entirely from its use. Tobacco has an injurious effect upon the nervous system, upon the digestion, upon the heart. It is an unclean habit. I always feel that it is a pity that the breath and person should be tainted. God's creatures, and, most of all, His human creatures, should be sweet and pure and clean. It is an exceedingly wasteful habit. The indictment against the nation for the millions, expended in tobacco year by year, must be a very great one

before the high Court of Heaven. This indictment is enhanced by the great need for money for social work, for helping the poor, and for missions, at home, and abroad."

Dr. Roswell Park, of Buffalo, writes:—"You ask my opinion on tobacco, and it is hard to give it in few words. Moreover, its effects on different people are so various. I don't know how to answer. I believe it should not be used in early life, nor by those whom it evidently injures; simply, unnecessary, and often foolish. I say this, though I smoke occasionally myself."

The consensus of opinion of these physicians of note, and others of equal eminence and ability, touching the value of this universally used narcotic herb, as a medicine and luxury, is practically unanimous on several propositions:—

1st. That it is too poisonous to be of value as a medicinal agent.

2nd. That it does injuriously effect all under certain conditions:

All under certain ages.

All possessing certain idiosyncrasies.

All who use it to excess.

In view of the above data, what is our duty as physicians to our patients? Is it anything less than to prohibit its use in the youthful and those possessing idiosyncrasies? To discourage the excessive use in the healthy adult? What is *excessive use*? How are we to determine only as we watch each individual case and note that moment when the subtle and poisonous nicotine, with its stealthy and silent action, has invaded every avenue of human life?

The voice of the medical world is practically unanimous in its declamation that the use of tobacco is injurious to the young, and yet, in the face of this unanimity of opinion of that profession, recognized as authority, fifty per cent. of the boys in our cities, before reaching the age of fifteen years, become habitual users of tobacco, and even the helpless infants, in many homes, are constantly compelled to breathe an atmosphere laden with smoke of the narcotic herb, listed, by noted scientists as extremely poisonous.

Is it heredity or example that induces the boy of ten summers to smoke the deadly cigarette? Class it in either, and where rests the responsibility?

The laity tell us they see no harm arising from the use of tobacco and cite us scores of aged men who have used it all their lives. We point them to the few Grand Army men who gather on our streets every Memorial Day and tell them these men live; consequently there were no fatalities in the war of the Rebellion.

Because of its unappreciated and insidious influence, tobacco becomes a greater menace to human life.

As George Bancroft Griffith puts it:—

“How sad sometimes the foulest foe
In some unfeared pursuit,
Clasps silent fetters on man’s soul
To cage him like a brute.”

DISCUSSION.

Dr. S. J. Bassford:—The intrinsic value of tobacco is its *real* or *genuine* value. Abundant testimony is at hand to show that in medicine it has no real value, for, as Shoemaker says, “Its good effects are not of sufficient value to counteract its depressing effect on the heart and respiration. The effect on the nervous system is depressant.

The principal action is on the spinal cord and by its effect upon the general nervous system the efficiency of the individual is diminished.

I think we are agreed that young people should not use tobacco. It has been proven by experiment that the use of tobacco retards normal development, both physical and mental in the young. This is largely due to the use of the cigarette, the smoke of which is inhaled. Many authorities believe that the harm done is by smoke inhaled, containing carbon dioxide rather than by nicotine. Statistics bearing upon the influence of the use of tobacco as applied to the young, prove that we are correct in saying that the practice has no advantage and that tobacco has no real value for young people.

The only statistics that we have, emphasize the fact that the growing youth and the young man is retarded in his development, both physical and mental, by the use of tobacco. Prof. Seerley, Principal of Iowa State Normal School, after making a careful study of 700 boys for ten years, reaches the conclusion that the boys who use tobacco are stunted physically and never arrive at a normal bodily development; that they develop certain disorders of digestion, nervous system and heart, and that they lost the ability to apply themselves to study.

Prof. Fiske, Principal of Northwestern Preparatory School, from statistics gathered by him, shows that of boys who smoke, only 2% are among the 25% of students who stand highest in class scholarship. So thoroughly convinced is he of the injurious effect of tobacco and cigarette smoking that he has asked any boy who cannot or will not give up cigarette smoking to leave the school.

Statistics from 15 high schools in different parts of the country, show that those who use tobacco in any form, rank lower than the abstainers. Of 700 boys, the average grade of smokers was 72.5%, while that of non-smokers was 87.6%. Very similar is the record made of 100 college students selected at random. The average grade of 50 smokers was 62.2%, while that of 50 non-smokers was 79.8%.

C. H. Dutton, Superintendent of Preston School of Industry, says that, after carefully watching the 700 boys under his care, the smoking of cigarettes by boys from 10 to 18 years is the most subtle destroyer of the boys’ mental faculty of all habits formed by them.

Experiments at Yale College have shown both mental and physical superiority of those students who abstain from the use of tobacco.

The prominent athletes, with one exception, did not use tobacco and *all* candidates for the boat crew abstained from its use. Hanlon, the oarsman, expressed his belief that the best physical work can only be secured by total abstinence from alcohol and tobacco, as the use of these articles have a most injurious effect on the system of an athlete.

I know of no statistics which have been gathered, that in any way contradict the above. Every time tests are made, the same results are obtained regarding the use of tobacco by young men and boys.

Regarding its effect upon older men, I can say but little in the limited time at my disposal. Statistics are not so readily obtained of its effect upon this class. That it is injurious to many is shown by results in those whose nervous system is so effected as to produce a tobacco heart, so-called, disturbances of digestion, changed condition of circulation effecting blood pressure of which we have abundant evidence, together with loss of efficiency to do physical work.

The physical director of the Denver Y. M. C. A. says he has made a special study of the effects of tobacco on men in training for all athletic sports and in *every instance* men who use tobacco were found to be inferior to non-users.

Judge Stubbs of Indianapolis gives the names of a long list of large corporations who refuse to employ men who smoke cigarettes. This list includes Swift & Co., Marshall Field & Co., John Wanamaker, and seven big railroad corporations. He says the list might be extended indefinitely, showing that the cigarette is a serious, if not a fatal handicap to the highest business success. These corporations find the men less reliable and less efficient when they smoke cigarettes.

Prof. Mosso, of Turin, Italy, has devised an apparatus called "Evograph" for the purpose of ascertaining the rapidity with which a person becomes fatigued. I have not time to relate in detail its action, but the results of accurate measurement shows that tobacco smoking has a short stimulating effect upon the smoker, which enables him to do more work, but that this period of stimulation is followed by depression which renders the man, in the end, less efficient and more fatigued, thus proving the stimulant narcotic effect of tobacco. Tobacco is a stimulant narcotic and by some excellent authorities the worst form is the cigarette.

So great is the evil and its dangers that every State in this Union has passed restrictive laws against the sale of the cigarette, most of them forbidding the sale to boys under 16 years of age. Five States have, by law, prohibited the manufacture and sale of cigarettes to anybody.

In conclusion permit me to say, considering the low intrinsic value of tobacco, that I hope the days is not far distant when the Maine Medical Association, the Cumberland County Medical Association, and kindred organizations will take an advance step and kindly ask the gentlemen not to smoke at such a function as that held last evening at the Congress Square Hotel, out of respect to the ladies present or invited speakers, who have to address us in a smoke laden atmosphere. I believe it only a fair request to make.

JOURNAL OF MAINE MEDICAL ASSOCIATION

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Editorial Comment.

Maine Legislature.

In a hasty review of the work done by the seventy-seventh session of the Legislature, just closed, we can touch in a very brief way on one or two matters of some interest to the medical profession.

One matter in which the profession was interested was the osteopathic bill, which was favorably reported by the judiciary committee and finally killed in the House. We might say in passing, that the legislative committee of the Maine Medical Association appeared before the osteopathic committee, not opposed to all forms of registration, but ready to accept any reasonable solution of the question. Two plans were proposed at this time. First, that the osteopaths be granted a board which shall provide that they shall be examined in and allowed to practice osteopathy only. Second, that we modify our present registration board so that osteopaths, meeting the requirements of that board, could come before it to be examined and be duly registered by said board. It is needless to say that the osteopaths, on advice of counsel, turned down both these propositions and attempted to fight the matter out, in hopes of duplicating our present Medical Registration Law, having made one or two changes from their original bill, eliminating minor surgery and obstetrics, but leaving them to do all other specialties known to the science of medicine today.

Some twenty acts, passed during this legislature, have more or less interest to the medical profession and will be published at intervals during the year. We have touched briefly upon the provisions for a Woman's Reformatory and feel that there is much to commend in

the act providing relief for the needy blind residents of Maine, as well as that regulating the hours of labor for women and minors.

Chapter 351, an act providing for the care of tubercular persons, should be looked into by all medical men.

The workmen's compensation act is very fair, in so far as it deals with the medical profession, as compared with acts passed by other states.

We propose, from time to time, to publish these acts and we urge the journal readers to watch the Journal's Medico- Legal columns.

State Program.

In the March and April issues of the Journal, as well as in subsequent issues, will appear the State program up to the date of publication. The program committee are endeavoring to offer a fund of good material for the state meeting and we can assure the members of the Association that the entertainment committee from Androscoggin, as well as the proprietors of Poland Springs House, are endeavoring to give each and all a royal good time at the meeting to be held at Poland Springs in June.

Each member should watch the State program each month and, if he has any suggestions to make, communicate immediately with the committee in charge. Furthermore, he should make up his mind not to miss this meeting, as our hosts on this occasion are very desirous of entertaining a large body of men and will surely make the trip worth your while.

If there is some subject not appearing on the program that you would like to have discussed, do not hesitate to suggest it and, if it is possible to get someone to take up this phase of the subject, we shall be very glad to do so.

Pregnancy and Tuberculosis of the Lungs.

Four Dutch physicians, Van Tussenbroek, Vos, Schut and Kouwer, have lately published in the *Nederlandsch Tidsch V. Geneeskund*, January 16, 1915, a summary of the results of their investigations of the influence of pregnancy on tuberculosis of the lungs. Out of 155 physicians interviewed, 54 had had uniformly unfavorable experiences, and 27 uniformly favorable. 184 cases were reported in which pregnancy had affected the lung-tuberculosis for the worse, and 223 cases in which there had been no apparent ill effects. 192 women came through with more than one pregnancy, and, of these, 56 eventually died of the tuberculosis, but some of them so long after the last pregnancy that there was little reason to associate the two.

The effect on the phthisis was uncertain; 5 developed miliary

tubercle and died before full term; 9 died within a fortnight of the birth of the child. Many, again, passed through one or more pregnancies without alteration in the chest, only to break down in another and to succumb with surprising rapidity. No indications were found which could foretell an unfavorable result. Even in laryngeal tuberculosis, which is claimed to be so uniformly fatal as to indicate the production of abortion, 10 cases out of 35 went to the full term, and 7 of the children lived in the 25 fatal cases. On the basis of such evidence, these physicians claim that early abortion is scarcely ever justifiable, solely because of tuberculosis. The pregnant woman should be treated exactly as any other tuberculous person, and not until the effect of rest, feeding, etc., had been ascertained would they ever allow the production of artificial labor.

Prohibition of the Manufacture of Absinthe in France.

Simultaneously with the prohibition of Vodka in Russia and the outcry against the rum ration of half a pint a day to all English soldiers in the allied armies, comes now the very recent prohibition, by the French government, of the manufacture and wholesale or retail sale of that vicious poison, absinthe, a slow, deadly, venomous poison which gradually undermines the mentality and ability of its victims. On the 12th of February, last, the law was passed and, although not quite so drastic as the Vodka Act in Russia, it is a far reaching legislation, which, though ultimately passed despite considerable opposition, would probably have failed had it not been for war-conditions confronting the nation. When we consider that fifty-three millions of gallons were consumed in France in 1913, it is plain that the nation was facing a deadly peril which had to be suppressed, if possible. Belgium had previously passed a law of this sort and the French Academy of Medicine had condemned the consumption of absinthe in unmeasured terms as a national peril of great extent.

Absinthe is compounded of from 40 to 70% of alcohol, in which is macerated the leaves and flowers of wormwood, angelica, anise, cinnamon, fennel, hyssop, peppermint and other herbs. Distillation then follows and the distillate is macerated again in leaves of wormwood, balm and hyssop. Denatured alcohol has of late been utilized for this purpose, with increasing toxic effects. It has been questioned whether the deleterious effects of absinthe drinking were due to the wormwood or the anise, but it has recently been assumed that the preparation of all these materials leads to the production of a toxic principal, absinthe ($C_{15}H_{20}O_4$). It is claimed that the next step in suppressing alcohol in France will consist in a government monopoly of its manufacture in any form.

The Rum Ration in the English Army.

Sir Victor Horsely, in more than one open letter and paper printed in several late issues of the British Medical for February, 1915, inveighs in forcible language against the continued use of the rum ration of ages past in the British army of today as now fighting on the continent. He claims that no less than 250,000 gallons of rum were sent across the channel in November of 1914, and asserts that it produces loss of moral sensibility, drunkenness, decadence, loss of endurance, loss of efficiency in loading, aiming and firing and hitting the mark. He also claimed that out of total abstainers, it tended to make drunkards by telling the men that rum was good for them and that the surgeons had ordered it (by compulsion of the government). The rum ration is, in his opinion, an inheritance from the days of ignorance. When ships were obliged to stand off and fire at one another at 500 feet the worst tipsified sailor could hardly fail to hit the mark, but now that they fight sea combats at miles distant, great skill is needed and the clearest hands and brains to see and to aim and to hit the mark which, in its turn, is doing its best to blow you out of water. So, too, in the land campaigns of today, the greatest temperance and sobriety are essential to a good result against a skilful enemy. Although Sir Victor's vigorous protests were backed up by other writers, one, in particular, knew how to talk back, for he claimed that nobody could get drunk on the rum ration of $2\frac{1}{2}$ ounces of rum, exposed to the open air of winter. He concluded his paper with this remarkable vitriolic verbiage. "The violence of a man who is drunk on $2\frac{1}{2}$ ounces of rum, if it be possible at all, is unpleasant to witness, but I do not know that it is more distasteful than the verbal violence of an Habukkuk Mucklewraithe inebriated with the exuberance of his own fanaticism."

Injections and Radiation in Tuberculous Glands of the Neck.

Two Dutch physicians, Dutch not German, which I emphasize, since most people consider that German beer and German cheese and German sauer-kraut and German sausage constitute a Dutch lunch, (When will people understand that Dutch is Dutch and Holland; and that DEUTSCH is a German word pronounced Doitsch and means German?) have lately given an excellent account of their experiences with those undesirable cases of tuberculous glands in the neck. The treatment varies with the stage of the disease, but may be divided into injection, radiation, and, rarely, excision. In case of a solitary infected gland, a needle pushed into it through the skin generally informs us if caseation has occurred. If so, it is then injected, either with cam-

phorated thymol gum oil mixture. The thymol injection is compounded of Thymol 30 parts, camphor 60 parts and sulphuric ether 100 parts. The dose is small, and, generally, under 1 cc. Some pain follows the early injections. The gum oil injection is composed of oil of cajeput, 10 parts (this may be increased to 20 or 30 parts) sterilized oil of sesame, 100 parts. The dose of this is $\frac{1}{2}$ cc of the weaker, up to 1 cc of the stronger solution. These injections break up the gland, which is then converted into connective tissue. Generally more than one injection is needed, and occasionally a fistula results, and needs scraping to be cured. If larger masses are met with, radiation is to be employed, about twenty minutes once a week.

In this way, a very much enlarged neck can be reduced to normal size in a few months, and the resulting appearance is very favorable. In obstinate cases, the injections and radiation may be combined.

Cancer in New Hampshire

According to the New Hampshire State Health Department great advancement has been made in the knowledge of cancer and in what may be done greatly to reduce its mortality. In the Quarterly Bulletin for January, 1915, Dr. Irving A. Watson, Secretary of the State Board of Health points out that both the physician and the patient should realize that the early discovery and removal of this disease are of supreme importance. The only two methods of treatment worthy of serious consideration are said to be complete removal by the surgeon as soon as the growth is discovered, or, in case of superficial or so-called skin cancers, the use of X-rays or radium. But it is emphatically stated that these newer methods offer no reliable hope of cure except in the treatment of surface cancers. No paste or other preparation externally applied to deep seated cancers like cancer of the breast, for instance, is of any use whatever; but, on the other hand, may lessen the chance of life through delay in substituting this treatment in place of early removal by the surgeon.

Reiterating the supreme importance of early discovery and immediate operation, Dr. Watson says that a delay to await more pronounced manifestations of cancer greatly lessens, if it does not entirely remove, the chance of successful treatment. For these reasons, the Bulletin goes on to say, "Persons of forty years of age and upward should be on guard to discover suspicious swellings, lumps, or sores, especially if painless (as cancer nearly always is in its initial stage) Any unusual condition of moles, warts, marks, etc., should be examined by a competent physician or surgeon without delay. If a cancerous growth is neglected until it becomes painful, the chances of successful treatment are greatly reduced, if not entirely lost. A lump in the breast barely discernible to the touch, not sore or painful in the least should arouse suspicion and professional advice should be sought at once. Likewise any abnormal discharge, especially if bloody, and any persistent sore spot on lips or in the mouth or throat should receive prompt attention."

Dr. Watson reviews the statistics of cancer in New Hampshire from 1884 to 1913 and shows that there has been a steady increase in the number of recorded deaths from 210 in the first year to 453 in the last year of that period. The total number of deaths from cancer for the entire period of thirty years was 9,096. Of this number, 3,075 were males and 6,021 were females. During the period reviewed the cancer death rate in New Hampshire increased from 5.93 to 10.42 per 10,000 of the population. Some people hold that much of the apparent increase of cancer is due to more correct diagnosis and better certification and statistics, but Dr. Watson does not believe that these factors can alone account for the increase of the disease in New Hampshire.

The State Board of Health has therefore joined in the efforts which are now being made for the control of cancer by educational methods. The State Laboratory has also undertaken to assist physicians in the early recognition of the disease by examining suspected cancerous material whenever submitted.

The American Society for the Control of Cancer has undertaken to conduct a national campaign of education in regard to this disease following the example and methods of the campaign against tuberculosis. The National Society is co-operating with State and local boards of health, medical societies, women's clubs, and other organizations in order to disseminate the latest knowledge about malignant disease. If the people of New Hampshire would carefully read and take to heart the sound advice given by the State Board of Health it may well be expected that the mortality from cancer in New Hampshire will begin to show a decrease.

Necrology.

THOMAS BRYANT.

I announce the death of Thomas Bryant, a famous English surgeon, the author of a *System of Surgery* which I studied in the beginning of my medical career. Bryant's book was the best in those days. Personally, he was a splendid figure at Guy's for years and delivered, three times a week, the most delightful clinical lectures imaginable. They were picturesque in language, yet accurate. The pathetic in Bryant's career was that sixty years of age turned him down and out of Guy's, when there was no one in sight of him as a surgeon and lecturer. This hurt him dreadfully, it almost killed him, but, fortunately, a smaller London hospital was eager still for his knowledge, and in that, for more than twenty years, additionally, he continued to operate excellently and to instruct sagely. Born in 1828, Bryant died over 85 years of age, only retiring from hospital and private practice after he had passed his eightieth birthday; twenty years, as you see, of knowledge lost to Guy's.

Bryant was fond of encouraging the students to write medical papers and, when they made slow progress, he volunteered to show them something in the way of foundations and style. Bryant's great forte as a surgeon was to perform torsion of all the arteries.

He twisted them all, both great and small,
And never had cause his plan to recall.

Or, as another wit hath said,
He twisted them high, and he twisted them low
Yet from none of them all did any blood flow.

J. A. S.

County News.

PORTLAND MEDICAL CLUB.

The regular monthly meeting of the Portland Medical Club was held in the Columbia Hotel, March 4, 1915. Dr. J. S. Jamieson was elected to membership.

Names of three other doctors were presented to the club for membership, and referred to the Board of Censors.

The paper of the evening was by Dr. Carl M. Robinson, subject, "Acidoses, Medical and Surgical." He brought out in the paper that this was a condition frequently met with in all sorts of practice. In this condition we have,

1. Increased alkali tolerance.
2. Decrease in titratable alkalinity of the blood.
3. Increase in the CO₂ content of the blood.

In general, Acidosis is the result of abnormal accumulation of acids in the body. The causes of this accumulation may be increased production of acid, faulty neutralization of acid already formed, or faulty elimination. It is easily understood how various diseases influence one or more factors. Diseases of metabolism, infectious diseases, poisoning with drugs, and shock, either physical or mental, result in varying grades of acidosis. The treatment depends upon the etiology. Morphine helps to prevent acidosis from physical shock, but retards the neutralization of acids already formed.

There was a very brisk discussion of the paper, and various cases were reported by the members present.

BENJAMIN FOSTER, *Secretary.*

KNOX.

The staff of the Knox County General Hospital at Rockland has been reorganized as follows:

Consulting physicians and surgeons—W. F. Hart, J. K. Hooper, Camden; J. E. Walker, Thomaston; S. Y. Weidmann, Rockport. Physician-in-Chief—F. B. Adams. Associate Physicians—F. H. Webster, M. J. O'Connor. Surgeon-in-Chief—W. M. Spear. Associate Surgeons—E. B. Silsby, A. W. Foss. Oculist and Aurist—H. E. Gribben. Pathologist and Bacteriologist—F. H. Webster. Superintendent—Katherine A. Donovan. Assistant Superintendent—Marion L. Hamblin.

F. H. WEBSTER,

County Editor.

OXFORD.

A meeting of the society was held at Needham's Hotel, Mechanic Falls, on Monday, March 29th, 1915, at 10.40 A. M.

Dr. Herbert E. Milliken of Portland read a paper entitled "Mucus Colitis," or "Types of Individuals as predisposing factors in Diseases of the Digestive Tract."

Dr. Milliken has read this paper before several county societies and it has received much favorable comment.

Aside from the usual business, in accordance with Chapter II, Section 3, of our By-Laws which requires that a part of one meeting each year be devoted to the discussion of business affairs of the physicians of the county, the discussion was opened by President H. L. Bartlett of the Maine Medical Association.

D. M. STEWART,

County Editor.

YORK.

The eightieth quarterly meeting of the York County Medical Society was held in the Town Hall, Sanford, Wednesday, April 7, at 11 o'clock A. M. In the absence of both the president and the Vice President, Dr. J. D. Cochrane, Saco, was elected chairman. The minutes of the January meeting were read and approved. Dr. F. A. Bragdon, Springvale, was elected to membership. It was voted to amend Art. V of the Constitution as suggested by the Committee.

The following report by a special committee was presented and accepted at the January meeting in Biddeford:

Moved to amend Art. V of the Constitution by striking out, in line 5, the word *two* and substituting therefor the word *three*; and adding after the word Association, in line 7, the words—"provided that, at the first election after these changes are made in Art. V of the Constitution, one delegate shall be elected for *one* year, one for *two* years, and one for *three* years."

Interesting case reports were given by Drs. C. W. Blagdon, J. A. Randall and C. F. Traynor.

Dinner was served at Hotel Sanford at 1 o'clock and it was a good one.

The afternoon session began at 2 o'clock. There was a paper, "Mental Diseases from the Standpoint of the General Practitioner" by Henry M. Swift, M. D., Portland, Professor of Neurology, Bowdoin Medical School. Dr. Swift presented this difficult subject in an able and comprehensive manner, imparting much valuable information. A rising vote of thanks was extended to Dr. Swift at the close of the meeting, which adjourned at 3.30 o'clock.

Several unavoidable occurrences conspired to make the attendance smaller than usual. Much illness among physicians and their patients, and the bad condition of the roads for traveling were the principal causes of the small number who came to the meeting.

There were present: Drs. H. M. Swift, Portland; J. D. Cochrane, Saco; C. F. Traynor, A. C. Maynard, Biddeford; C. E. Lander, S. B. Marshall, Alfred; L. W. Carpenter, Limerick; H. L. Prescott, Kennebunkport; C. W. Blagdon, R. S. Gove, D. W. Wentworth, W. H. Kelly, S. C. Hill, J. N. L'Heureux, A. Lamoureux, Sanford; A. S. Davis, Springvale; J. A. Randall, A. L. Jones, Old Orchard.

A. L. JONES,

County Editor.

Program of the Maine Medical Association.

(INCOMPLETE)

THE SIXTY-THIRD ANNUAL MEETING, JUNE 9 AND 10, 1915.

Subject not announced, H. R. Farris, Oxford

"Cancer of the Breast," W. E. Gray, Milltown, N. B.

"Internal Secretions from the Clinical Aspect," Illustrated,
W. Seaman Bainbridge, N. Y.

"Blood Pressure and Some of its Clinical Values,"
C. H. Witherell, Oakland

Subject not announced, B. F. Bradbury, Norway

"Treatment of Trifacial Neuralgia by Hypodermic Injections of
Alcohol," W. D. Williamson, Portland

"The Modern Physician's Long Arm in Preventive Medicine,"
Rev. A. J. Torsleff, Bangor

*Members who wish to offer voluntary papers or reports of cases are requested to communicate with the Program Committee, 148 Park St., Portland, Maine.

Chap. X, Sec. 2. All papers read before the Association or any of the Sections shall become its property. Each paper shall be deposited with the Secretary when read.

Abstracts from Current Literature.

Some Observations on the Nervous and Mental Symptoms of Heart Disease.

Joseph Irwin France, M. D., Baltimore, Md. Journal A. M. A., Feb. 20, 1915.

The writer believes mental symptoms may be caused by a heart lesion. The characteristics are an emotional state of depression, anxiety and fear, independent of any worry about the disease. He thinks this tends to corroborate the Lange-James theory of the emotions, which is that the emotions are secondary to somatic changes.

He reports three cases of cardiac disease with mental symptoms. (In two of these, however, it would appear that there were strong contributory factors; in one arterio-sclerosis and in another alcohol.)

H. M. SWIFT.

Acute Hemorrhagic Pancreatitis.

The British Medical for January 2, 1915, has a long report of the Bradshaw Lecture on Acute pancreatitis by Sir Frederic Eve. He begins by noting the macroscopic appearances, histology, experimental pathology, and lymphatic origin of pancreatitis. He then turns to the cause, which he refers to stasis and infection. Gall stones are a cause in from 44 to 66%, duodenal ulcer is another cause, and round worm a rare cause. Gall stones or obstructions of various sorts are found in 82% of post mortem examinations. Many diagrams are shown, exhibiting the course of the ducts of Santorini, of Wirsung and of the ductus choledochus, and these assist the reader in forming an opinion of the lecturer's claims. As to sex and age, the percentage is 63 males and 37 females, the age being generally between 45 and 65. It is noted as a rarity that a third of all the London patients were under the age of 40.

Some mention is also made of chronic pancreatitis, which in the authors' opinions is also largely due to gall stones.

The writer now reaches the acme of his paper with symptoms and treatment. The symptoms are pain, vomiting, tenderness, rapid and weak pulses, temperature high, then subnormal, epigastric tenderness, peritonitis, and later on, left lumbar swelling. Vomiting occurs in 80% of all the cases as an initial symptom. Fat-necrosis at time of operation is very helpful in prophesying what we are to encounter.

Cambridge's reaction, whatever that may be, is declared of no value at all, so we need not worry our brains in hunting it up, or worry

our readers with its details even when discovered.

The only treatment is an immediate operation, below the stomach, through the upper part of the gastro colic omentum. A rapid operation will save 33% of cases, the rest will die. All die without an operation.

This admirable paper closes with mention of injuries to the pancreas with suggestions for treatment which of course will vary in every instance.

J. A. SPALDING.

(Surgery, Gynecology and Obstetrics, March, 1915.)

Uterine Prolapse with Associated Pelvic Relaxation.

By C. H. Mayo, M. D.

He points out that there are few principles involved in surgical treatment; is it really a form of hernia. The paper is important in calling attention to the special treatment for the different types of cases. The uncomplicated cases, not requiring abdominal exploration, are relieved by Alexander's method.

In the grave cases, some abdominal work will be required on the ligaments to replace and retain the organ in normal position. Cases attended by cystocele in patients near or past menopause with firm uterus, which will not pull out of the vagina when antverted, the inter-position type of operation is the best. If this operation is used in parus women the tubes should be resected.

In women with soft, degenerating uterus, especially if it can be brought out of the vagina when antverted, a different procedure is necessary. Also in cases where pushing the uterus high up does not carry the vesicocoele and rectocoele with it. Kocher's method or any form of ventro suspension is not sure to give permanent results and would be inefficient unless the bladder was first fastened to the uterus and broad ligaments before the suspension. Murphey's method of bisecting the fundus and stitching each half into corresponding sheaths of rectus muscle would cure some cases.

In more pronounced cases of descensus with atrophied ligaments, in patients fifty years of age or more, where the above methods, for obvious reasons, would fail, Mayo advises vaginal hysterectomy, separating the lateral vaginal wall from the bladder, and the bladder from the uterus, incising peritoneum and turning the fundus out and the cervix back so that a long clamp may be applied to the broad ligaments from above downward. After removal of the uterus the broad ligament stumps are sutured together, taking up all slack so they will be tense across the pelvis. When the round ligament is reached in the stitching, it is sutured into the angle of the dissection when the bladder

was separated from the vaginal wall, and the line of suture is carried back, uniting the broad ligaments to the depth of the vaginal dissection as far as possible, thus forcing the bladder to rest on the broad ligaments. Of course vaginal plastic work is done as indicated. Mayo claims all the advantages for this procedure without the disadvantages of interposition or other methods of operating for this class of cases.

H. F. TWITCHELL.

Surgery, Gynecology and Obstetrics.)

Intestinal Stasis.

By Sir Berkeley Moyinham, Leeds, England.

Moyinham says that he has "thought many hours, read much and worked not a little at this subject of intestinal stasis and believes it is a subject that will have to be considered by all of us for there is truth in the matter."

His observations have proven to him that along the course of the intestine certain bands exist, either of congenital or developmental origin and that undue delay in the forward transmission of the intestinal contents does occur, accompanied by an intoxication of the individual so affected. Thus it has come about that it is generally recognized that there is a certain type of patient whose ills are sorely dependent upon intestinal stasis. The disease is called Lane's disease, the symptoms of which are strikingly repeated in case after case. The victim is generally a woman of unhealthy aspect, lean, cadaverous, and flat chested. The breath is sour, the hands *cold* and *clammy*, and mentally, there is a complete absence of joy. The skin is harsh and of an earthy color and the abdominal muscles are flabby and flaccid. She makes complaint of indigestion, pain after meals, flatulence and incoercible constipation.

In these cases, Moyinham firmly believes that mild measures, such as massage, abdominal exercises and laxatives are not of great avail. He considers them properly cases for surgical treatment and that the operation should be excision in whole or in part of the colon. He personally believes his results are better if the descending and pelvic colon are left, while the lower ileum, ascending and transverse colon are removed, — Friedrich's operation.

After this operation the patient described above is often seen to undergo a marvelous rejuvenation, to gain weight and actually glow with health and happiness.

Moyinham accepts the above clinical aspects of intestinal stasis as a proven fact. As to how much of a causative factor in other diseases this stasis is, he considers debatable. He himself believes that stasis stands in casual relationship toward some cases of chronic

joint affections and that such cases exhibit a marked and instantaneous delay or even cessation in the destructive processes after operation on the bowel and that a complete recovery of the joint ultimately occurs.

P. P. THOMPSON.

(Surgery, Gynecology and Obstetrics.)

The Treatment of Osteomyelitis.

By Dr. Channing Simmons, Boston, Mass.

Dr. Channing Simmons gives us a most exhaustive study of 97 consecutive cases of osteomyelitis treated by him at the Massachusetts General Hospital. His word to the surgeon is operate early and follow your cases carefully so as to be able to operate again if symptoms indicate. He gives us a most hopeful outlook as to cures of these cases if this advice is followed.

Dr. Simmons lays great emphasis on the importance of not overlooking the acute cases, generally in children, where every case of trauma with some complaint of pain in a limb should be thoroughly investigated. He says operate early here, even if symptoms are vague. He makes several openings with a bur into the medulla of the bone and packs the wound. He outlines carefully the line of treatment he has pursued in all the different types of chronic cases and suggests many points to those interested in the subject.

P. P. THOMPSON.

Personal News and Notes.

Dr. S. E. Fisher of Portland has returned from a two weeks' southern trip and has resumed his practice.

We are sorry to learn of the illness of Dr. Benjamin B. Foster of Portland and pleased to note that he is on the rapid road to recovery.

Dr. H. E. Gribben of Rockland has returned from a three weeks' business trip in Boston and New York.

Dr. Geo. C. Precourt has been elected City Physician of Biddeford, and Dr. C. E. Thompson has been elected City Physician in Saco.

Dr. D. E. Dolloff has been elected Park Commissioner in Biddeford.

Capt. Daniel W. Wentworth, M. D., of Sanford, attached to artillery headquarters, has been placed on the retired list. Capt. Wentworth has taken an active part in the work of the corps. He was a

crack shot and had represented the corps and State on several occasions when the best marksmen were desired.

Dr. E. C. Cook of York has been seriously ill, having undergone an operation for appendicitis.

We are glad to state that Dr. Daniel Driscoll of Portland has fully recovered from his recent illness and has again resumed his practice.

It is gratifying to note the final passage of the bill providing for a Woman's Reformatory, which reflects great credit on the acting members of the Cumberland County delegation in legislature, as well as the proponents of the bill. Members of the Maine Prison Association and other friends of the measure wish to express to the members of the Maine Medical Association their appreciation of the strong support they have given to this measure. It is certainly a step in the right direction.

There was born to Dr. and Mrs. Arthur L. Jones, Old Orchard, Tuesday, March 30, a son, Leon Franklin.

■■■■■

Dr. Benjamin F. Sturgis, former mayor of Auburn, and one of the oldest and best known physicians in the State, died in Auburn, March 31. Born in Gorham in 1837, Mr. Sturgis was graduated from the Bowdoin Medical School in 1863. He served as assistant surgeon in the 19th Maine in the Civil War. Later years he practiced at New Gloucester, and came to Auburn in 1867. He was president of the Maine Medical Association, was a member of the Maine House of Representatives for three terms and served in the Maine Senate in 1876 - 77.

He is survived by four sons, Alfred Sturgis of Portland, Dr. John Sturgis of Auburn, Dr. B. F. Sturgis, Jr., of Salem, Mass., and Dr. Carl Sturgis of the hospital staff at the Augusta State Hospital.

■■■■■

Notices.

The Seventh Pan-American Congress will meet in San Francisco, June 17 - 21 inclusive. It assembles pursuant to invitation of the President of the United States issued in accordance with an act of Congress approved March 3, 1915.

The countries and colonies embraced in the Congress are the Argentine Republic, Bolivia, Brazil, Canada, Colombia, Cuba, Chile, Costa Rica, El Salvador, Ecuador, Guatemala, Honduras, Haiti,

Hawaii, Mexico, Martinique, Nicaragua, Panama, Paraguay, Peru, Santo Domingo, United States, Uruguay, Venezuela, British Guiana, Dutch Guiana, French Guiana, Jamaica, Barbadoes, St. Thomas and St. Vincent. The organization of the Congress is perfected in these countries and the majority of them have signified their intention to be represented by duly accredited delegates.

The Congress will meet in seven sections, viz.: (1) Medicine; (2) Surgery; (3) Obstetrics and Gynecology; (4) Anatomy, Physiology, Pathology and Bacteriology; (5) Tropical Medicine and General Sanitation; (6) Laryngology, Rhinology and Otology; (7) Medical Literature.

All members of the organized medical profession of the constituent countries are eligible and are invited to become members. The membership fee is \$5.00 and entitles the holder to a complete set of the transactions. Advance registrations are solicited and should be sent with membership fee to the Treasurer, Dr. Henry P. Newman, Tinken Building, San Diego, California.

The general railroad rate of one fare for the round trip, good for three months, made on account of the Panama-Pacific Exposition at San Francisco, and the California Exposition at San Diego is available for the Pan-American Medical Congress.

The Palace Hotel will be headquarters.

The First Pan-American Medical Congress was most successfully held in the United States in 1893. Five intervening Congresses have been held in Latin American countries. It now devolves upon the medical profession of the United States to make this, the seventh, the most successful in the series.

Charles A. L. Reed, President, Union Central Building, Cincinnati.

Harry M. Sherman, Chairman, Committee of Arrangements, 350 Post St., San Francisco.

Ramon Guiteras, Secretary General, 80 Madison Avenue, New York City.

Philip Mills Jones, Special Committee on Hotels, 135 Stockton St., San Francisco.

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No contra-indications are known. For clinical reports address:

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NEW YORK

New and Non-Official Remedies.

During February the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Non-official Remedies:

H. K. Mulford Co.:

Cholera Serobacterin, Meningo Serobacterin, Typho Serobacterin, Mixed.

FOR SALE--Victor Transformer.

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Write DR. F. S. WAKEFIELD, Lewiston, Maine

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BOOKLET and other descriptive matter sent on request

THE JOURNAL

OF THE

Maine Medical Association.

Published under direction of the Council of the Maine Medical Association

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The Journal assumes no responsibility for opinions expressed by the authors.

VOL. V.

MAY, 1915.

NO. 10

*SALVARSAN.

By HOWARD K. TUTTLE, M. D.,

Assistant Physician, Mass. State Infirmary.

A review of 300 unquestionable cases of syphilis treated at the Massachusetts State Infirmary during the years 1908 to 1911 with mercury and the iodides, show the following facts:

Total number of cases treated, 300

Average hospital time per patient, 86.5 days.

Results:

Apparently cured,	165 or 55 %
Improved,	107 " 35.6%
Not improved,	19 " 6.4%
Died,	9 " 3 %
Known recurrences,	35 " 11.7%

Owing to the length of time necessary to heal the lesions, numerous patients became discouraged and absconded before their lesions had healed, thus at once becoming a menace to the public.

Several cases were under continuous treatment for periods of time varying from 200 days to over a year, only to have a recurrence, and return for further treatment.

One patient presented large tubercular syphilides, and was under treatment for 952 days. During this time she developed stomatitis on several occasions. At the end of this time she was given 0.6 grms. salvarsan intramuscularly, and was discharged, apparently cured, at the end of 81 days.

As we are dealing entirely with charity patients, the burden of their support falls solely on the State. At the daily per capita

*Read before the 62nd Session of the Maine Medical Association at Portland, Me., June 10, 1914.

cost of \$0.50, the average cost of a patient in this series amounts to \$432.50, not considering the loss to the patients themselves, or their employers.

But we cannot at present discard the mercurials and iodides in the treatment of syphilis. Many are unable to obtain the newer preparations on account of location and excessive expense, and occasionally cases are met that apparently do better on the mercury than on the arsenic.

During the past two and one half years, 654 patients have received 1,667 doses of the salvarsan preparations. Old salvarsan was used the first year, since then, the neosalvarsan. The following facts are taken from these series.

Total number of cases treated,	654
Average hospital time per patient,	26.8 days.

Results:

Non-leucic cases,	9
Apparently cured,	497 or 79.9%
Improved,	95 " 15.3%..
Not improved,	16 " 2.5%
Died,	14 " 2.3%
Still in hospital,	23
Known recurrences,	36 " 5.5%

Deaths were due to the following causes:

Congenital syphilis,	2
Tertiary syphilis,	1
Cerebro-spinal syphilis,	2
Tabes dorsalis,	2
Salvarsan poisoning,	1
Other independent causes,	6

Practically every patient was held in the hospital until the lesions were healed, with the rare exception of chronic leg ulcers.

By the use of salvarsan, the hospital time of each average patient is reduced 59.7 days. At \$0.50 per day, this means a saving of \$29.85 per patient, or \$19,521.90 for 654 patients. These figures must not be taken as representing the actual amount saved to the institution, for many patients remain in the out-patient department until conditions outside favor their obtaining employment. However, it shows the possible saving, could the patient be discharged as soon as his physical condition permitted. Again, the saving to patient and employer is of no small consequence, although it is impossible to estimate.

The simpler the method of administering salvarsan, the better. Our apparatus consists of an ordinary buret holder, a glass funnel,

2½ feet of rubber tubing, and the distal 8 inches of a No. 25F. soft rubber catheter, connected to the rubber tubing by a short piece of glass tubing. A 16 ounce bottle with ground glass stopper is used to mix the solution. With salvarsan, 25 cc. salt solution to 0.1 gm. of the drug is used. Being an acid preparation, this has to be neutralized by adding 1 cc. of a 15% solution of sodium hydroxide. With the neosalvarsan, 25 cc. of sterile distilled water at room temperature is used for each 0.15 grms. of the drug. Four sizes of needles are used, Nos. 16, 17, 18 and 19, depending on the size of the vein. The arm of the patient is sterilized with tr. of iodine. The glass funnel, held in the buret holder, is partially filled with water to exclude air from the tubing, a tourniquet applied to the arm, and the vein is carefully punctured with the needle. As the blood appears through the needle, the tourniquet is released, and the end of the rubber catheter, gently pushed over the needle, starting the injection with water to make sure no infiltration is taking place. When satisfied of this, the salvarsan solution is poured into the funnel, straining it through eight layers of sterile gauze. The injection is finished with the water, to empty the tube of the solution, thus insuring the patient of the full dose.

Ehrlich's rule of 0.1 gm. of salvarsan, and 0.15 grms. of neosalvarsan for every 25 pounds of body weight is strictly followed for the initial dose, although with subsequent doses of neosalvarsan, the dose may be gradually increased. The interval between doses should be at least four days, as hourly urinalyses show the greatest excretion of arsenic to take place during the first and second hours following treatment. This amount of arsenic gradually diminishes until, by the fourth day, only the very slightest traces can be detected.

The more salvarsan one uses, the more he comes to believe that it is indicated in all cases of syphilis, and that there are no hard and fast contradictions. Being a powerful and dangerous drug, it must be used with care in all debilitated patients, and especially those presenting organic diseases of the heart, blood vessels, kidneys and central nervous system. These conditions frequently compel one to start with small doses, and, at times, to avoid raising the blood pressure, the drug can be given by deep intramuscular injections.

The responses of the syphilitic lesions and symptoms to the salvarsan treatment are very prompt. This is especially noticeable in the cases of primary and secondary syphilis. Headache, bone and joint pains, sore throat, etc., disappear over night. Many of the open lesions are well in one week's time. Old tertiary ulcers seem the most resistant, and many times skin grafting is employed to cut down the hospital time. Rarely will a graft fail to take on an ulcer that has previously received salvarsan treatment.

In syphilis of the central nervous system, the results are variable, depending on the amount of nerve cell destruction that has previously taken place. In some of these cases the best that can be expected is to stop the process of destruction.

Case 191, Series 2, shows the best result in this type of case. History of chancre 12 years previous. Two weeks ago, found he could not button his clothes. He staggered to the left side. Progressive weakness of legs and arms. Incontinence of urine and feces. Pupils do not react. Knee-jerks present. Marked dementia. Tubercular syphilide of fore arm. Wassermann positive. He received three injections of "606," and in 24 days was discharged, stating he felt as well as he ever did.

Hereditary lesions respond quite as readily as the acquired, and numerous cases, crippled since infancy with syphilitic bone disease, are promptly healed.

The reaction to neosalvarsan is much milder than following the old salvarsan. With the "606" the usual symptoms were chill, temperature and pulse elevated, nausea and vomiting, headache, diarrhoea, and in a number of cases the Herxheimer phenomena, that is, pain and other accentuations of symptoms at the seat of the lesions. Occasionally, the so-called delayed reaction is noted, coming on from two to seven days after the injection, and characterized, in addition to the above symptoms, by an angina of the throat with great thirst, and a morbilus or scarlatina-form rash. This reaction usually lasts three or four days, and has all the appearances of an acute infection.

When the patient shows a hypersensibility to the drug, it is wise to decrease the doses, and lengthen the interval between them.

As in most clinics that have used a considerable amount of salvarsan, we have not escaped unfavorable results.

Case 66, Series 3, a Greek with primary syphilis, received 0.9 grms. neosalvarsan as the first dose, with no reaction. One week later he received 1.2 grms. Three days following this, he had convulsions, elevated temperature and pulse, profuse sweating, head retracted, eyes rolled up, all reflexes exaggerated, and Kernig's sign present. He died the following day. His room-mate stated that he had had fits before. Post-mortem showed an acute hemorrhagic encephalitis. Whether this was a straight case of arsenical poisoning, or one in which epilepsy played a part in aggravating the reaction, is impossible to say.

Case 247, Series 3, a woman with primary syphilis, and pregnant, received 0.9 grms. neosalvarsan with no reaction, and six days later, through the over-zealousness of a house officer, received 1.35 grms. as the second dose. Six days following this, a morbillus eruption ap-

peared over the entire body. Eight days later she presented the following condition. Desquamation of the entire body, flaccid paralysis of the legs, knee-jerks lost, Babinski's sign present, sensation almost entirely lost in the legs, incontinence of urine from over distention, and bed-sores on back and hips. Two days later she was delivered of her child, having an absolutely painless labor. A month later, all motions of the legs had returned, but were weak. She had control of bladder and rectum. Five months after receiving neosalvarsan, she was walking up and down stairs. At the age of six months, her baby died of congenital syphilis. A few days later the mother was discharged completely well.

This is clearly a case of an over-dose, and impressed one of the great care that must be taken in keeping close to the doses recommended by Ehrlich, and of the grave disasters that may follow an over-dose of a dangerous drug.

Case 149, Series 3, latent syphilis, received 0.9 grms. neosalvarsan as the initial dose, with no reaction. Five days later, he received a second dose of 0.9 grms. Three days after, he showed diarrhœa, vomiting, angina of throat, morbillus rash over body, and elevated temperature and pulse. These symptoms subsided in a few days, but were followed by a jaundice of gradually increasing intensity, until it became extreme. This icterus was accompanied by clay colored stools, bile in the urine, and rapid loss of weight. It was a question for a while whether we were dealing with an acute yellow atrophy of the liver, or an inflammatory condition of the duodenum and bile ducts. The jaundice continued for six weeks, and gradually subsided, the patient making a complete recovery.

Case 119, Series 4, a woman with secondary syphilis, received five doses of neosalvarsan, 0.45, 0.6, 0.9, 0.9, 1.2 grms. at intervals of from three to eleven days. Nine days after the last dose, she presented a skin lesion of the entire body, greatly resembling dermatitis exfoliativa. This was accompanied by an extreme branny desquamation. In six weeks her skin had again become normal.

Following the fatal case of acute arsenical poisoning, a review of the literature showed that a majority of the deaths occurred from acute hemorrhagic encephalitis, but nowhere was a method of treatment mentioned. For this condition we have adopted the following method. The bowels are opened with saline cathartics, large amounts of water given by mouth, aseptic ergot is given hypodermatically to assist in avoiding the œdema of the brain, and, in the extreme cases, lumbar puncture is resorted to.

The advisability of combining or following salvarsan with mercury is much discussed. Those who favor this method claim that

the *treponema pallida* acquire an immunity to the arsenic after frequent doses, and remain latent in the tissues, to break out again at some subsequent time. This is undoubtedly true of atoxyl, but, in our experience, the salvarsan heals the recurring lesions quite as rapidly as the initial ones. Others claim the salvarsan deaths are due to combining the two drugs, but this is probably not so, for many are admitted direct from mercurial treatment, and immediately receive salvarsan, without ill effects. Personally, we cannot see the advantage in combining the two drugs. There can be no doubt but that in salvarsan we have a much more powerful anti-syphilitic agent than mercury. After a thorough salvarsan treatment, the patient is warned of the likelihood of a recurrence, and the necessity of further treatment at the first sign of a relapse is impressed upon them. Numerous cases of the Wassermann becoming negative, and remaining so, convinces us that syphilis can be cured by salvarsan, if the treatment is persisted in.

In the salvarsan series were three cases that can reasonably be called reinfections. Two cases of primary and secondary, and one of secondary syphilis received salvarsan, and were discharged apparently cured. About one year later they returned, two with primary, and one with primary and secondary lesions. All gave distinct histories of recent reinfection.

Five cases were met, clinically tuberculous, and absolutely denying any venereal infection, that gave a positive Wassermann test. Two were multiple fistulæ-in-ano, two, bone tuberculosis, and the fifth, tuberculosis of the glands, skin, and fascia. None responded in the least to repeated salvarsan treatment. It is impossible to rule out latent syphilis, either hereditary or acquired, and more cases must be observed before we can decide whether tuberculosis has any influence on the Wassermann test.

The following conclusions are drawn from 21 cases of *tabes dorsalis* treated with salvarsan. Seven cases showed absolutely no improvement. In the remaining 14, improvement in lightning pains, gastric crises, and gait was fairly constant. Perforating ulcers showed immediate improvement, and in most cases, healed. Incontinence of urine seemed to be the most resistant symptom.

Three cases of general paræsis showed no improvement.

Forty-nine pregnant women received salvarsan. In one instance, slight contractions of the uterus followed.

Of 16 babies, born before the mother received salvarsan, 9 were syphilitic, 6 of whom died.

Of 23 babies, born after the mother received salvarsan, 5 developed syphilis, 2 of whom died.

Salvarsan probably has a decided effect in preventing the child from developing congenital syphilis, if given before the birth of the child. Whether or not a syphilitic infant derives any benefit by nursing a mother who is receiving salvarsan, is still doubtful.

What are some of our present short-comings in the treatment of syphilis?

First: In many sections of the country it is nearly impossible to obtain a reliable Wassermann test without such expense as the patient is oftentimes unable to bear.

Second: The absolute neglect on the part of certain classes of patients to adhere strictly to the necessary long continued treatment with mercury and the iodides.

Third: The failure of the newer remedies to affect a positive cure, and the heavy expense to the patient who receives persistent treatment until cured.

Fourth: The treatment of syphilis in our out-patient departments. Syphilis should be isolated in hospital wards as other acute infectious diseases, until reasonably sure the patient cannot infect others. Many patients of the more ignorant classes are on drunken debauches, infecting others at the same time they are receiving treatment at some out-patient clinic. One case in particular, well illustrates this point. A Portugese negro, while waiting for a Wassermann report on a suspected primary lesion, absconded from the hospital. Two months later he was readmitted with secondaries in full bloom. He admitted intercourse with a dozen different women, among them his wife, who was afterwards admitted with secondary lesions.

Surely, we must keep our syphilitics under closer observation than the out-patient department enables us to, if we intend to make progress in the eradication of this great scourge.

DISCUSSION.

THE PRESIDENT: Several members of the Association have signified their willingness, upon request, to discuss this paper; and I will call upon Dr. Whittier of Brunswick to open the discussion.

DR. WHITTIER: Mr. President, and Members of the Association:

I feel incompetent to discuss this very excellent paper of Dr. Tuttle's. I have never given salvarsan, and my only opportunity of learning about its use and effects has been from being interested in the Wassermann test. At the College laboratory at Brunswick, we have performed several hundred of these tests. In many cases I have taken the blood of the patient myself. In this way I have had a chance to see the "before and after taking," because we have not only tested the blood before the administration of salvarsan, but we have tested the blood after the administration of salvarsan; so our patients have been at once the raw material, the patients in the full bloom of syphilitic

symptoms upon which the salvarsan is to work, and, again, the finished product, — the people whom the salvarsan has cured. As the result of this rather unscientific observation, because I have not tabulated my records as Dr. Tuttle has, I have become more and more enthusiastic in regard to the effect of salvarsan when properly administered. I have seen so many cases where men have been afflicted with this terrible scourge, and their symptoms have been cleared up under the influence of salvarsan, and the positive Wassermann reaction has become a negative reaction, that I have come to believe this to be one of the greatest additions to our materia medica, that has been given to us in later times.

Just a word about the Wassermann test. I have been very much interested in this, and, together with my colleagues at Brunswick, have used it a good deal, with some chance to test its efficacy. We hear a great deal about the unreliability of the Wassermann test, as we hear a great deal about the unreliability of various other tests used in the laboratory. Everybody who knows about laboratory work knows of the immense chance for error. We do not stand for laboratory infallibility. We know if a man changes one test tube for another, or makes some slip like that in the laboratory, he destroys the efficacy of his test; but, on the other hand, the Wassermann is the most absolutely controlled test that is known. We run through three different tests at the same time; and the careful worker, working with the Wassermann, will come to have the most absolute confidence in the positive test. If he gets a positive test as a result of the Wassermann, he puts that down as indicating syphilis. Of course, in doubtful cases we do the test over, and get sometimes a shade different result from what we got before; but I fail to remember of any case where we got a positive Wassermann reaction, where any subsequent doing of the test over showed any different result. I thank you. (Applause.)

THE PRESIDENT: I am sorry that Dr. Thompson of the State Hospital at Bangor, who is also down on the program to discuss this paper, is not present, as he has had experience in both a clinical and pathological way. I will ask Dr. Bryant of Bangor if he will give us something about his work in this matter.

DR. BRYANT: Mr. President, and Members of the Association:

I did not come here prepared to speak upon this subject. Dr. Peters informed me on the train that I would be called upon, and I will simply go over briefly the experience I have had with salvarsan. I think I have given several hundred doses of salvarsan within the last three or four years. At first we were enthusiastic. We felt that we had a remedy, one or two doses of which were going to do the trick, and we imagined all sorts of good results which were to come from the use of the remedy. In some cases one or two doses does the trick; but in a great majority of cases it is a matter not only of two, but of four, eight, ten and sometimes twenty doses in order to do it. I know the first case I treated, I gave two doses, and after two years the case remained absolutely negative as regards the Wassermann. I have another case under treatment at the present time which has had fourteen doses, not only of salvarsan and neosalvarsan, but at the same time the combined mercurial treatment. The Wassermann still remains positive. I believe we have in salvarsan a very important addition to our treatment of syphilis. I believe that if we only should accomplish by giving one or two doses a clearing up of the symptoms, and simply making the patient no longer a menace to the

people with whom he is in contact, we are doing a great thing. I believe heartily in the mixed treatment. I believe your patient comes to you to get well, and not to try out the effects of salvarsan or any other remedy; so my routine treatment now as they come to me is to give them the old salvarsan, as I do not have confidence in neosalvarsan. I believe the neosalvarsan has about one-half the strength, and gives about one-half the good results of the old salvarsan. It was a mistake that neosalvarsan was ever put upon the market; and I think that our best results are obtained from the use of the first product, "606." It is a little harder to use, but I believe that one dose of the old salvarsan is equivalent to three or four doses of neosalvarsan; and so I have discarded the use of the new product entirely at the present time, unless it be some case where I want simply a weak result when trying to get my reactions, and seeing if the patient is able to stand the larger doses. When a patient comes to me, I give three or four doses of the old salvarsan from one week to ten days apart. I usually give the maximum for the first dose. If I get a severe reaction, I taper it down, and then gradually work it up again. Then the patient either goes on to mercurial inunctions or on to the injections of the salicylate of mercury. I believe that, as a rule, iodide of potash in the third stage is good. Give them three or four doses of salvarsan in the beginning; then put them on to mercurial inunctions, or salicylate of mercury, and perhaps continue that for two or three months, then salvarsan once a month, if possible getting in two or three more doses of salvarsan, and keeping up the whole treatment for six months. Then discontinue the treatment entirely for two months, and try again for your Wassermann. If it is negative, go two months longer, and try it again, and in another two months try it again. If you get a positive, as you do in a great many cases, even after six months' treatment, start the course over. Give two or three doses of the old salvarsan, continue your mercury for three or four months longer, discontinue, take your Wasserman again. In this way I think you will be able to cure possibly seventy or eighty per cent of your cases. I believe that in the time we have been using salvarsan, two or three years, we cannot positively say whether our patients are cured or not. Where they are using the more delicate Wassermann method, I find that some of the cases that I thought were cured are showing slight positive reactions.

THE PRESIDENT: This paper is now open for general discussion, gentlemen. Have you anything further to say in closing the discussion, Dr. Tuttle?

DR. TUTTLE: I agree with Dr. Bryant in the combined use of mercury and salvarsan in the private patients. The series of cases I have observed have been entirely among charity patients in the institution, those patients whom it is impossible to get to take long-continued treatment with mercury and potassium iodide, who would stop taking that treatment the minute their lesions are healed, considering themselves cured. However, with the private patient, the combined treatment would work to advantage for three reasons: It would cut down the excessive expense which would necessarily follow if a patient received salvarsan repeatedly until his Wassermann was permanently negative. It also would serve to keep the patient under observation, which too often does not occur. We lose track of the syphilitics. Also it serves to make the patient realize that he is not cured. We have many of them who will receive three, four or five treatments, and perhaps not so many, who will immediately say, "Well, I am cured now. No more medicine for me." That is just the thing we need to impress on them as not being so; and, if we can keep them

under our constant observation by giving them a treatment, we can perhaps make them realize the gravity of their condition, and that they must remain under observation for a long-continued period before they can really be pronounced cured. We know that repeated doses of salvarsan do not always give us a negative Wasserman. This is one of the disappointments in the use of the drug.

***SURGERY OF THE KIDNEY. CASE REPORTS WITH OBSERVATIONS.**

By JOHN STURGIS, M. D., AUBURN, ME.

Mr. President, Members of the Maine Medical Association and Visitors —

When I was invited to present a paper on Kidney Surgery, I decided that the history and theory of the surgery of the kidneys was to be learned from the recognized text books much better than from me but that I would give somewhat of my experience by a few case reports and their results.

No. 1. A man about forty years old was hit on the back by a falling dead branch of a tree. He required assistance to walk $\frac{1}{4}$ mile. After a few days took up his work but felt some indefinite soreness in region of loins of which he afterwards complained. About 15 years from the date of the injury his symptoms became aggravated and he made an office call on a physician who prescribed, thinking it might possibly be rheumatic. I saw him about the tenth week and there was a distinct tumefaction in right lumbar region which could be felt anteriorly also. I made an incision over prominent portion in right loin and about a pint of pus drained then. Drainage was very profuse, both pus and urine, and on the third day, while removing the gauze drain, I found a somewhat irregular shaped and roughened calculus about the size of a dried pea. Drainage became gradually less and finally the urinary sinus healed and 9 years from the date of operation, patient is rugged and doing farm work. This is the only time that I have found a calculus in a perinephritic abscess. I do not know whether there was pus in the urine before I operated or not because as soon as I saw the evidence of abscess I opened it.

No. 2. A man received a blow over region of kidney and in 5 years' time was having distinct and repeated attacks of renal calculus.

*Read before the 62nd session of the Maine Medical Association at Portland, June 11, 1914.

Treatment along the line of medicines of hydrotherapy finally gave the resulting cure. How much more fortunate was this man than the first.

No. 3. A young woman met with a fall of which she made no serious complaint, but gradually from a most active young woman she became an invalid and after four years she came to my attention and care. 23 years of age, having occasional attacks, growing more frequent, of suffering much pain in the left side, pain excruciating, and incapacitated completely for 1, 2 or 3 weeks at a time. I found a distinct tumefaction on right side, low down. X-ray showed no calculus on either side. I made abdominal incision over prominence of tumefaction and found a very movable right kidney which caused the abdominal muscle to create the impression of a tumor 3 or 4 times larger than the actual size of kidney. I made a "shelf operation" and then examined the left kidney which I found slightly enlarged and with marked hypertension. I could not find a calculus. I operated over region of left loin and relieved the tension by splitting the kidney capsule and then sutured the kidney in the usual manner to prevent its descent. Patient made a very nice recovery in spite of the fact of a double kidney operation and she writes me that she feels satisfied with her present condition. This patient had been examined and treated and advised by physicians in various localities. There was no statement made suggesting any trouble with the right kidney upon which I made the "shelf operation." Her complaints and the attention of the physicians were of the left side which was not so movable as the right.

No. 4. A man nearly 30 years old, who gave a history of indefinite abdominal pains, finally came to me for operative work. I made an abdominal incision, right semi-lunar line, and found that I could remove the tubercular kidney without opening the peritoneum. The patient lived about 3 years and then died of phthisis.

No. 5. A woman about 55 years old with tumor of right side which, upon exploratory abdominal incision, was found to be a diseased kidney which was removed transperitoneally with very little difficulty. To my mind these two cases were easier through the abdominal route than they would have been from the region of the loins.

No. 6. A man with a calculus in left ureter which was so patulous that it permitted the one stone to be moved upward or downward easily. I experienced some difficulty in holding the stone so that I could deliver it. Since then I have an instrument that would have helped me much had I owned it then. This case gave a history of a kick by a horse. Rubber dam drain to the ureteral opening which healed in relatively short time. The patient tells me that he has been catheterized and that both kidneys are active.

No. 7. A perinephritic abscess which had caused the patient to have a list of somewhat indefinite complaints. Finally patient showed evidence of abscess for which I was called. I incised and drained the abscess which required dressings for about 4 months. This patient's history was most unsatisfactory to me because I could not learn any possible cause or duration of the time required for the above condition.

No. 8. A woman, diagnosed as tubercular kidneys with perinephritic abscess, incision and drainage of abscess and afterward the tubercular kidney was removed and the patient is seemingly free from any symptoms which suggest tuberculosis. I have been told that patient was back to her usual weight and activities.

No. 9. A man fell, striking on his feet, stiff legged, and ruptured kidney which caused profuse and persistent hemorrhage which was finally controlled medicinally. Patient ever after had trouble. Urine showed pus which no doubt came from the breaking down of the kidney. Patient declined operative treatment and he died of nephritis.

These cases are taken as suggestive of what may come to a surgeon in some of these so called borderland cases, and we learn that they are borderland because according to the old adage "History repeats itself." The diagnosis is very difficult and many times is not made previous to operation. I believe that a fall or blow affecting the back may bring about a condition of the kidney that favors either calculus formation or abscess formation, either one may come to the attention of a surgeon.

Gentlemen, I thank you.

DISCUSSION.

THE PRESIDENT: The discussion of this paper was to have been opened by Dr. John F. Thompson of Portland; but, as he has not yet arrived, I will declare the paper open for general discussion.

DR. YOUNG: Mr. Chairman—These cases I think arise rather more frequently than is generally recognized. I recall one that had a very happy termination without any interference, a case of undoubted perinephritic abscess that went on to a very large abscess under the advice and treatment of an osteopathic physician, who was going to drain it through the lymphatic system. He called it, I think, a congestion of the kidney, and he took the patient under his care and treatment for about six weeks. The patient grew progressively worse and finally left the care of the osteopath and returned home. That day or the next he had a severe pain and immediate discharge from the bowels which filled a slop jar nearly half full with pus. That was a spontaneous cure of a perinephritic abscess by boring a hole into the colon. The patient has since been very rugged and well, and made rapid recovery.

DR. WILLIAMS: I think the Association is to be congratulated at hearing an account of such a series of cases as we have just listened to, and I am sure

I am very greatly obliged to Dr. Sturgis for bringing this matter before the Association. While the paper was being read, I recalled one case of so-called perinephritic abscess (a nephritic abscess by the way) which came under my care. A large tumor was very prominent from examination in front. I opened posteriorly, and had no trouble in evacuating the abscess; but it took me a long time to find the calculus which was the cause. It was not very large, but it was embedded in the substance of the kidney, the calculus being irregular. In turn, the soft tissue of the kidney was in the sulci of the calculus. Examination did not readily reveal it, but, by persistently following up the sinus, and forcible examination, I did find the calculus, removed it, and the patient made a perfect recovery. I want to say again that I congratulate Dr. Sturgis on his series of cases, and am very glad to have been able to be present to hear about them.

DR. ROBINSON: Mr. President—These cases are liable to come to any of us at any time, and they are very difficult sometimes of diagnosis. A case came to the hospital under my care, where the man had had long-continued pain in the back. I supposed, of course, we should find an abscess of the kidney. I cut down upon it, and found a hydronephrosis of very limited extent. I drained it and supposed I had cured him. He went back home and his pain immediately returned. The doctors there performed another operation, and found lower down a stone in the ureter. They removed that and he was apparently all right. He went on a few months and his pain returned as bad as ever. He took a rifle and shot himself. I do not know what the last trouble was, but the two operations failed to cure him, although at the time they seemed to be everything that was indicated. I have been called when a nephritic abscess has been diagnosed as appendicitis. The pains complained of were all in the appendix. I was called in the night, made an operation for removal of the appendix, and found no trouble there; but on turning the patient over and opening in the back, I found a large, deep-seated abscess. I had suspected this before, but the doctor was so very sure it was appendicitis that I opened in front first. The case was a very blind one; and I think you will find, as the doctor showed in his paper, that these kidney cases are sometimes exceedingly hard to diagnose, particularly these border-line cases where the pain is down around the appendix. Appendicitis, being the most frequent cause for surgical interference in that region, is apt to be the first diagnosis made; and frequently it is only after repeated observations and sometimes by operation that the true cause is ascertained.

DR. WILLIAMS: I would like to ask the author to give his views in regard to the transperitoneal operation for fixation of the kidney.

THE PRESIDENT: In just a moment. Is there anyone else who cares to offer anything?

DR. YORK: Mr. Chairman, I would like to have a little more time. Perhaps Dr. Sturgis can clear up a matter for me when he closes. I recall an operation, and I think it was one of Dr. Sturgis' cases, where some years after removal of the kidney, or some operation on the kidney, there was a large tumor appeared right over the sacrum. I say "large" because it was large, and it kept growing larger. It was a case that needed drainage (I thought it did, and I think so now), and I drained it and got about a quart and a half of mixed pus and urine. For some two or three years afterward the urine continued to drain through the opening over the sacrum; then the patient died. That was a case of operation on the kidney where the patient had gotten well,

and then this appeared, evidently from some part of the kidney, making a drainage down through the back instead of down through the urethra. Perhaps Dr. Sturgis may recall something of the kind.

DR. MINER: Mr. President and Gentlemen—Dr. Sturgis' paper was very interesting and instructive to me. I wish to report a case of particular interest, which later proved to be of a Tuberculous Pyo-hydronephrosis with Calculae. She came to the hospital in very bad condition. The mass on her right was easily palpable. I did not use the Cystoscope because of her weak and nervous condition, but made an incision on the border of the rectus and dissected out the mass after convincing myself that the left kidney was normal. The dissection was very difficult being so adherent to the intestines, etc. The pathologist, who went through the specimen thoroughly, reported a dilation of the pelvis and calices of the kidney. Three cavities besides containing pus of a mixed infection, had typical tubercles and stones. Other cavities containing simply urine. The ureter was completely blocked. The mass was eight or more inches in diameter, which was removed with the ureter as far from the growth as possible in the short time at our disposal. Low down drainage was made and the patient made an uneventful recovery. The peculiar part of the condition to me was that we should have such a mixed pathological condition, and which was the primary cause of her trouble. In my opinion, the primary lesion was the calculi. To be sure, there is considerable argument which might be placed in favor of the tuberculous infection being primary. The history of the case as I received it from the family and also from her physician leads me to believe that in her case, as well as in a large percentage of all these cases, the infection is secondary. I believe in all kidney conditions before surgical treatment is instituted, the ureters when possible should be catheterized.

THE PRESIDENT: Is there anyone else who cares to say anything upon this subject? If not, I will invite Dr. Sturgis to close the discussion.

DR. STURGIS: In regard to the question that Dr. Williams asked as to the fixation of the kidney by the peritoneal route, I will say that to my mind it was a very easy matter in that particular case. It has been an easy matter in three cases that I know about. The only feature that struck me with any degree of question is the matter of keeping away from the urethra. In other words, perhaps you are all familiar with the idea of the operation; but let my hand represent the kidney, which had been playing backward and forward freely, as in the case that I related. You can take that kidney from anywhere within the peritoneal cavity, and swing it all up and down on this right side. I put it up into place then with my sutures. I cut on either side of the kidney, cut the structure of the peritoneum, and all, right down to the deeper muscles, leaving just enough of that urethra to go through, and that closed that kidney up nicely. It does not come down. Though the patient coughed while under ether, and we could feel the impulse above the line of sutures, it did not start downward, and it has held up well. She makes no complaint and says she is entirely satisfied. It was especially interesting to me to have a chance to operate on the other kidney at the same time, and make an operation in the left loin on the left side. The right side I closed up as soon as I got through the fixation. The left side I opened, and made what is generally known as a fixation of the kidney with sutures. Because of the hypertension, I split the capsule, and then sutured the kidney in the usual manner, and fastened the muscle to the back. Now there is a woman who has had both operations done and who says she is entirely satisfied. She says that of course she gets tired

when riding too far in the automobile, but ordinarily feels all right. I got a letter from her last week, having written her to find out. Three other cases I know about of the same form of fixation, what I have heard spoken of as the "shelf operation," making the shelf to hold the kidney up, are not making any complaints yet. They may later.

In regard to the case where the calculus appeared on the third day, I meant that I never had seen a calculus deliver itself after a perinephritic abscess without surgery. That came out with the gauze packing.

As to Dr. York's question: That patient, as I recall the history, went a long time before having that break out; so whether there was some breaking down of that kidney structure itself which made another block in the urethra, causing another abscess, or not, I do not know. I believe there was. I believe that it was a case that developed secondarily; because, as I recall it, it went long enough following the first operation to feel that it was relieved; that the operation in itself gave relief, but that there was something that favored the return conditions. In other words, I wish the kidney had been taken out. I do some conservative surgery sometimes that I wish I had never attempted.

DR. GORDON: Let me ask you a question or two. What success, if any, have you had with attempts at relieving the symptoms except by operation?

DR. STURGIS: To repeat the teachings of Dr. Sayre: He said that wherever he found pus he should always let it out. I believe you have got to let pus out, unless it breaks through as in the case related and makes its own discharge.

DR. GORDON: You do not understand me. I do not mean in regard to pus cases. I mean in regard to floating kidneys generally: Have you tried other remedies except operations, and with what success?

DR. STURGIS: I have in mind a man now who came to me, and who wears a belt, from which he certainly gets much relief and comfort. He calls himself cured of his trouble; but in hot weather that belt irritates him. It disturbs him enough so that he needs to go to a skin specialist instead of one on kidney work; but, so far as the pressure from the belt is concerned, I believe it does help when the corset is properly fitted; but I believe when you get any sign of that kidney breaking down into pus, it then becomes an operative case.

Laryngeal Diphtheria.

This terrible affection is alleged to be curable by petroleum oil, covering the taste with compound decoction of sarsaparilla. The dose is 30 minims every 3 hours for two days, then every 4 hours, ten minims for two more days by which time a cure is generally brought about.

Benzol for Leukaemia and Lympho Sarcoma.

Moorehead in the British Medical Journal, March 6, 1915, claims to get good results in these two diseases by the use of benzol, a sort of gasoline. He gives it mingled with equal parts of olive oil, say 30 minims in a capsule once or twice daily, increasing the dose to 60 and finally to 90 minims. Benzol chemically speaking is what we call benzEne but spell it with an "I" as BenzIne.

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Editorial Comment.

State Meeting.

During the past week, the following members, representing the different committees and officers of the Maine Medical Association met in a conference with the owners of the Poland Springs House to formulate plans for the State meeting in June, namely Dr. Bartlett, president, Norway; Dr. Cummings, Councilor, of Lewiston, and Drs. Scannell, Webber, Ness and Bolster of Lewiston, representing the committee on arrangements, and one member of the program committee.

The question of hotel accommodations was quickly settled by the statement of Mr. E. P. Ricker, to the effect that there would be no expense to any member from the time he left the train until his return. In other words, they would be their guests during their two days' stay at the Poland Springs House, and would be given as good accommodations as possible at that time. The regular guests of the hotel must, necessarily, have first choice of the accommodations but following that, every effort will be made to treat all members fairly and justly. It is very important that each member, intending to attend this session, shall notify the committee on arrangements at the earliest possible time and no later than the first of June so that accommodations can be arranged for. Unless this rule is strictly adhered to, those attending the session without previous arrangements must take their chance.

The committee on arrangements, as well as the officers of the Association, feel that this most magnificent offer will be greatly appreciated and that any member attending this session will have only

himself accountable in regard to enjoying the trip. The very many delightful features about Poland Springs have led people from all over this continent, and even from abroad, to spend weeks, and even months, at this delightful resort, and it is certainly a great privilege to the medical profession to be able to enjoy it even for two days. Surely no one needs urging to take advantage of this opportunity for a most delightful vacation trip.

Dupuytren's Contraction.

Those who are interested in this curious condition of the hands will gladly turn to a paper by Black in the British Medical for Feb. 20, 1915, for in it he goes into careful detail of the cause and treatment of this odd condition. Although pressure in various ways is regarded as the prime cause, the writer hardly believes in it as a single cause, for many of the afflicted suffer from the condition in the left hand which has never been so subjected to pressure as has the right hand. He ventures the hypothesis, that ultimately the cause will be found in a gouty or rheumatic condition in persons of advancing years. He furthermore goes into the medical and surgical treatment, and concludes that medical (thiosinamine and thyroids) has not proved so certain as claimed and that surgical means with proper splints will favor recovery in many instances.

Wassermann Reaction in Eye Practice.

Manson and Smith in a long paper on this topic, embracing tests in 250 eye patients, and printed in the British Medical Journal for February 20, 1915, come to this valuable conclusion: That, excluding such conditions as injuries of the eyes, conjunctivitis, cataract and the ordinary errors of refraction, if all other eye affections without selection are analyzed on the basis of the Wasserman test, practically 50% of these, collectively, are associated with the positive reaction. Since many of such lesions are in the tertiary and latent stages of syphilis, in which only a certain proportion yield a positive result, it is a justifiable presumption that this is probably an underestimate, and that syphilis plays an even more prominent part in the production of eye diseases, than our figures show.

Anti-Vaccinationists and Typhoid Prevention.

The anti-vaccinationists in England being weary of attacks on small pox vaccination are now turning their energies against typhoid prevention by vaccination. Their arguments remain the same stale thoughts as of old, whilst their chief venom is now poured out against the doctors who are asserted to support typhoid immunity simply

for the sake of getting a fee for every vaccination. No attention is paid to the reduction of cases of typhoid or percentage of deaths in the present war in comparison with those of past wars. If there are less cases, the anti-vaccinationists claim it is simply due to the greater antiseptic efforts of the physicians. In other words when these opponents of typhoid vaccination want to make a point, they are very glad to insist on the beneficial efforts of physicians, but when they want to make a point in another direction, nothing to be said against the doctors can be couched in any language except the commonest and the vilest. Their insane idea over and above every other one in their opposition to any sort of vaccination is this: the liberty of the subject must not be violated, no matter how convincingly the arguments in favor of any medical reform.

Necrology.

CROWELL CLARINTON HALL.

Dr. Hall, long a well known member of our Association, as well as of the American Medical and the Piscataquis County Medical Societies, died in Dover, where he had practiced for several years, on the 19th of October, 1914, after a long illness. He was the son of Aretas and Anne White Hall of St. Albans, Maine, and was born there November 16, 1853. He obtained his education in the schools of his native town, and later on, at Foxcroft Academy, and at the Central Maine Institute at Pittsfield. He then began the study of medicine at the Portland School for Medical Instruction, continued his studies at the Medical School of Maine and obtained his degree at the Dartmouth Medical School in 1876. He began his medical practice at Monson, and continued there until 1888, diversifying his practice with one or two winters of post graduate instruction in New York. He removed to Dover in 1888, soon obtained, as he had before at Monson, an excellent practice, and continued in that mode of life until about two years before his death, when his health began to fail and, after a long illness and much suffering, he passed away.

Dr. Hall would probably have lived longer to do a great deal more good work in medicine, had he not so widely entered upon outside affairs which undoubtedly tended to hasten the end of his life. He not only owned and personally carried on a place for the selling of medicines, and allied trade, but he dealt largely in timber lands, was a director in the bank and in a trust company, president of a light and power corporation, a county treasurer, a politician (being twice in the Legislature) a mason of high degree, trustee of the local academy and prominent in Odd Fellow circles.

He is survived by a widow and three children, one of whom is a physician practising in Foxcroft, and continuing his father's extensive business.

J. A. S.

Members of the Maine Medical Association

May 1, 1915.

This List of Members consists of those reported in good standing by the Secretaries of the County Societies at the June, 1914, Meeting, and corrected to May, 1915.

*Corrected list not returned.

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 Swasey, G. B., Portland
 Swift, H. M., Portland
 Sylvester, C. B., Harrison
 Thayer, Addison S., Portland
 Thayer, Augustus S., Portland
 Thombs, S. B., Portland
 Thompson, J. F., Portland
 Thompson, P. P., Portland
 Thompson, W. S., Standish
 Tobie, W. E., Portland

Turner, G. H., Portland
 Twitchell, H. F., Portland
 Vaughn, P. H. S., Yarmouthville
 Vanamee, T. O., Portland
 Warren, S. P., Portland
 Webber, M. A., Portland
 Webber, M. C., Portland
 Webster, F. P., Portland
 Welch, F. J., Portland

Westcott, C. P., Portland
 Whitmore, Wm., Portland
 Whittier, F. N., Brunswick
 Williamson, W. D., Portland
 Witham, A. N., Cumberland Mills
 Witherle, C. B., Portland
 Wood, H. A., Portland
 Woodman, D. N., Yarmouthville

*FRANKLIN.

Bell, C. W., Strong
 Brown, E. J., Stratton
 Colby, F. B., Rangeley
 Currier, E. B., Phillips
 Head, O. B., New Sharon
 Higgins, E. C., Phillips
 Howard, A. G., Farmington
 Makepeace, B. F., Farmington

Nichols, J. W., Farmington
 Perkins, J. W., Wilton
 Pratt, G. L., Farmington
 Pratt, H. S., Farmington
 Ross, A. M., Rangeley
 Trefethen, W. J., Wilton
 White, V. O., E. Dixfield
 York, A. I., Wilton

*HANCOCK.

Black, R. A., Sullivan
 Bliss, Raymond, Blue Hill
 Bragg, J. S., Winter Harbor
 Freeman, F. H., Surrey
 Gage, I. B., Atlantic
 Hagerthy, A. C., Ellsworth
 Hagerthy, G. R., Bar Harbor
 Higgins, R. G., Bar Harbor
 Hodgkins, Lewis, Ellsworth
 Holt, H. A., W. Sullivan
 Hutchins, J. G., Stonington
 Littlefield, O. A., Bluehill
 Morrison, C. C., Bar Harbor
 Neal, G. A., Southwest Harbor

Noyes, B. L., Stonington
 Ober, F. R., Northeast Harbor
 Patten, J. H., Bar Harbor
 Phillips, G. A., Bar Harbor
 Phillips, J. D., Southwest Harbor
 Smith, F. Fremont, Bar Harbor and
 Washington, D. C.
 Tapley, Thos., McKinley
 Underhill, C. S., Franklin
 Wakefield, R. W., Bar Harbor
 Wardwell, M. A., Penobscot
 Wasgatt, C. E., Deer Isle
 Webster, H. B., Castine
 Woodruff, H. L. D., Ellsworth

KENNEBEC.

Abbott, C. W., Waterville
 Abbott, H. W., Waterville
 Badger, F. H., Winthrop
 Beach, S. J., Augusta
 Beane, C. H., Hallowell
 Berube, D. T., Augusta
 Boyer, E. W., Waterville
 Bunker, L. G., Waterville
 Campbell, G. R., Augusta
 Clason, S. O., Gardiner
 Coombs, G. A., Augusta
 Cragin, D. B., Waterville
 Davies, O. C. S., Augusta
 Desjardins, A. W., Waterville
 Donnell, R. E., Gardiner
 Fish, E. P., Waterville
 Frederick, H. J., Augusta
 Goodrich, E. E., Waterville
 Goodrich, M. S., Waterville
 Hall, H. W., Augusta
 Hardy, T. E., Augusta
 Harris, W. H., Augusta
 Hedin, C. J., West Pownal
 Hill, J. F., Waterville
 Horseman, H. L., Worcester, Mass.
 Hurd, B. P., Waterville
 Kagan, S. H., Augusta

Ladouceur, J. W., Augusta
 Leach, C. H., So. China
 Libby, A. B., Gardiner
 Mabry, C. J., No. Vassalboro
 Mann, L. L., Augusta
 McKay, R. L., Augusta
 Merrill, P. S., Waterville
 Miller, H. W., Brewster, N. Y.
 Milliken, H. A., Hallowell
 Milliken, J. S., Readfield
 Newcomb, C. H., Clinton
 Nutting, J. D., Jr., Hallowell
 Parizo, H. L., Waterville
 Parker, G. C., Winthrop
 Pitman, M. W. H., Riverdale-on-
 Hudson, N. Y.
 Poulin, J. E., Waterville
 Presson, Dorris M., Augusta
 Ridlon, D. B., National Soldiers' Home
 Sawyer, Alton, Gardiner
 Shaw, A. A., Clinton
 Simons, R. D., Gardiner
 Small, M. M., Waterville
 Stinson, H. K., National Soldiers' Home
 Strout, F. E., Gardiner
 Stubbs, R. H., Augusta
 Sturgis, K. B., Augusta

Sturtevant, A. H., Augusta
 Thayer, F. C., Waterville
 Totman, V. C., Oakland
 Towne, J. G., Waterville
 Tyson, F. C., Augusta
 Vosburgh, S. E., Augusta

Walker, F. D., No. Vassalboro
 Washburn, G. E., Augusta
 Williams, H. E., Mt. Vernon
 Witherell, C. H., Oakland
 Young, A. G., Augusta

*KNOX.

Adams, F. B., Rockland
 Bartlett, F. O., Rockland
 Coombs, G. H., Waldoboro
 Foss, A. W., Rockland
 Frohock, H. W., So. Thomaston
 Gribben, H. E., Rockland
 Hadley, L. H., Union
 Hart, W. F., Camden
 Judkins, M. P., Rockland
 Kellar, B. H., Appleton

Larabee, F. W., Brighton, Mass.
 Lyford, W. F., Vinal Haven
 O'Connor, M. J., Rockland
 Sanborn, J. W., Waldoboro
 Silsby, E. B., Rockland
 Spear, W. M., Rockland
 Stetson, E. F., Damariscotta
 Steward, C. W., Rockport
 Webster, F. H., Rockland
 Weidmann, S. Y., Rockport

*OXFORD.

Bartlett, H. L., Norway
 Bicknell, R. W., Canton
 Binford, H. J., Mexico
 Bisbee, C. M., Rumford
 Bradbury, B. F., Norway
 Farris, H. R., Oxford
 Fitch, H. F., Brownfield
 Gehring, J. G., Bethel
 Greene, J. A., Rumford
 Haskell, W. B., Oxford
 Heald, H. M., Buckfield
 Hutchins, G. H., Mechanic Falls
 Leslie, F. E., Andover
 Littlefield, J. G., So. Paris
 Marshall, L. H., Hebron

McCarthy, E. M., Rumford Falls
 Morse, F. W., Canton
 Nile, J. A., Rumford
 Parady, L. W., Rumford Point
 Pease, W. M., Dixfield
 Rowe, W. T., Rumford
 Stanwood, A. L., Rumford
 Stewart, D. M., So. Paris
 Stimpson, A. J., Waterford
 Sturtevant, J. S., Dixfield
 Tibbetts, R. R., Bethel
 Trufant, L. H., Norway
 Wheeler, F. E., West Paris
 Wight, E. A., Bolster's Mills
 Wight, I. H., Bethel

PENOBSCOT.

Adams, Lester, Bangor
 Barrett, J. A., La Grange
 Brown, A. A., Bangor
 Brown, E. E., Bangor
 Bryant, B. L., Bangor
 Bryant, C. S., Millinocket
 Bunker, D. W., Bangor
 Burgess, C. H., Bangor
 Chapman, H. M., Bangor
 Clough, H. T., Bangor
 Coe, T. V., Bangor
 Crabtree, H. H., Bangor
 Edmunds, C. D., Bangor
 Elkins, P. H., Oldtown
 Farnham, E. J., Patten
 Fellows, W. E., Bangor
 Hall, L. F., Winn
 Hall, W. C., Orono
 Hammond, W. J., Enfield
 Haskell, P. T., Bangor
 Hasty, W. L., Hampden
 Hills, F. H., Bangor
 Howes, L. M., Bangor
 Hunt, Barbara, Bangor
 Hunt, W. L., Bangor
 Kane, H. F., Bangor
 King, H. A., Bangor

Knowles, R. N., Bangor
 Landry, G. E., Oldtown
 Lethieq, J. A., Brewer
 MacDougal, W. E., Millinocket
 Madden, M. C., Oldtown
 Mansfield, Blanche M., Bangor
 Marquis, E. M. C., Oldtown
 Marsh, S. N., West Enfield
 Marston, H. E., Pittsfield
 Mason, L. S., Bangor
 Mason, W. C., Bangor
 McDougal, W. E., Millinocket
 McCann Daniel, Bangor
 McCurdy, C. L., Bangor
 McNally, W. P., Bangor
 Milliken, H. J., Bangor
 Murphey, J. H., Dexter
 Nason, C. J., Dixmont
 Nason, W. H., Hampden
 Nealey, E. T., Bangor
 Norris, L. F., Bangor
 Osgood, H. W., Bangor
 Peters, W. C., Bangor
 Philbrick, C. S., Bangor
 Porter, E. A., Pittsfield
 Quinn, Hugh, Bangor
 Redman, S. J., Exeter

Richardson, H. K., Bradford
 Robinson, D. A., Bangor
 Robinson, H. L., Bangor
 Rowe, A. W., Oldtown
 Russell, J. P., So. Brewer
 Sanger, E. B., Bangor
 Sawyer, J. W., Dexter
 Simmons, W. H., Bangor
 Small, A. E., Bangor
 Smith, A. K. P., Bangor
 Snow, H. E., Bucksport
 Starrett, J. F., Bangor
 Strout, A. C., Garland
 Thomas, C. M., Brewer
 Thomas, C. P., Brewer

Thompson, H. E., Bangor
 Thompson, J. B., Bangor
 Tibbetts, G. B., Orrington
 Tomlinson, E. E., Orono
 Twitchell, A. H., Oldtown
 Varney, J. R., Oldtown
 Walton, R. D., Frankfort
 Way, G. F., Jr., Lincoln
 Weld, G. G., Oldtown
 Weymouth, F. D., Charleston
 Whitney, W. E., Bangor
 Woodcock, G. M., Bangor
 Woods, J. B., Bangor
 Wright, L. G., Bangor

*PISCATAQUIS.

Brown, M. O., Dover
 Bumps, W. A., Dexter
 Crosby, N. H., Milo
 Dore, G. E., Guilford
 Flynt, E. D., Foxcroft
 Ford, L. C., Milo
 Hall, C. C., Foxcroft
 Hathaway, W. R., Jr., Milo
 Hunt, Hiram, Greenville
 Marsh, R. H., Guilford

McDonough, F. H., Brownville
 Merrill, E. D., Foxcroft
 Potter, H. L., Guilford
 Pritham, F. J., Greenville Jct.
 Purington, W. A., Sangerville
 Sampson, H. W., Monson
 Snow, H. A., Milo
 Stanhope, A. H., Dover
 Varney, F. L., Monson
 Wilson, J. H., Cambridge

SAGADAHOC.

Barker, B. F., Bath
 Fox, Horace, Bath
 Fuller, E. M., Bath
 Gregory, G. A., Boothbay Harbor
 Hannigen, R. C., Bath
 Irish, I. C., Bowdoinham
 Kershner, W. E., Bath
 Leathers, Enoch, Wiscasset

Lincoln, J. O., Bath
 Marston, E. J., Bath
 Peabody, F. B., Richmond
 Peaslee, C. A., Bath
 Price, W. N., Richmond
 Snipe, L. T., Bath
 Stott, A. A., Woolwich
 Williams, A. F., Phippsburg

SOMERSET.

Blance, Clarke, Norridgewock
 Blanchard, L. H., Hartland
 Brown, R. C., Bingham
 Dascombe, L. A., Skowhegan
 Greene, S. F., Solon
 Menges, O. A., Athens
 Milliken, W. S., Madison
 Moulton, C. A., Hartland

Piper, J. O., Solon
 Sawyer, W. G., Madison
 Smith, H. W., Norridgewock
 Stinchfield, W. S., Skowhegan
 Thibodeau, J. A., Madison
 Wadsworth, J. D., Skowhegan
 Williams, F. J., Bingham
 Wing, E. M., No. Anson

WASHINGTON.

Barker, N. B. T., Woodland
 Bennett, E. H., Lubec
 Best, H. H., W. Pembroke
 Bunker, W. H., Calais
 Burritt, G. L., Harrington
 Chandler, F. A., Addison
 Crane, J. W., Dennysville
 Cranston, E. A., Calais
 Curtis, A. K., Concord, N. H.
 DePue, H. R., Princeton
 Dibblee, G. O., Moore's Mills, N. B.
 Deinstadt, W. M., St. Stephen, N. B.
 Dyas, A. D., Eastport
 Dyas, I. E., Calais

Gilbert, W. J., Calais
 Grady, Eliza, Eastport
 Gray, W. E., Milltown, N. B.
 Hambleton, M. B., Augusta, Me.
 Holland, R. A., Calais
 Hull, P. B., Jonesport
 Johnson, C. E., Princeton
 Johnson, H. O., Machias
 Johnston, S., Vanceboro
 Longfellow, J. W., Machias
 Maloney, D. A., Robbinston
 Main, C. C., St. Stephen, N. B.
 Mason, H. B., Calais
 Miner, W. N., Calais

*Maine Medical Association

Program of the Poland Springs Session at the Poland Spring House

Wednesday and Thursday, June 9-10.

Tuesday

JUNE 8.

House of Delegates will meet at 8 P. M., at the Poland Springs House, on Tuesday, June 8th, and at other times as may be necessary, subject to call of the President.

Wednesday

JUNE 9, MORNING SESSION, 9.00.

The Modern Physician's Long Arm in Preventive Medicine.

Rev. A. J. Torsleff, Bangor

Abstract. In the olden time, the doctor must prescribe for the patient and then leave the care in the hands of the family or kindly disposed neighbors with the training of crude experience only. Thus was developed the so-called "experience nurse." With the establishing of hospitals, where young ladies could secure training for nurse's work, the so-called "trained nurse" was developed. Finally, in the physician's efforts to follow up cases outside of institutions, the so-called "district nurse" was developed.

Her field of work as an aid to the medical profession and to humanity.

Cancer of the Breast.

W. E. Gray, Milltown, N. B.

AFTERNOON SESSION, 2.00.

President's Address.

H. L. Bartlett, Norway

Subject not announced.

B. F. Bradbury, Norway

Annual Oration — "Internal Secretions from the Clinical Aspect, Illustrated."

W. Seaman Bainbridge, N. Y.

RECEPTION AND ANNUAL BANQUET Will be held at Poland Springs House at 7.30 P. M.

Toastmaster, J. F. Thompson, Portland.

Thursday

JUNE 10, MORNING SESSION, 9.00.

The Senile Heart.

H. R. Farris, Oxford

Abstract. General consideration of the effects of the passage of years. How the heart is affected by age. The symptoms and signs of the senile heart. Its concomitants and sequelae. Therapeutics.

Blood Pressure and Some of its Clinical Values.

C. H. Witherell, Oakland

AFTERNOON SESSION, 2.00.

Treatment of Trifacial Neuralgia by Hypodermic Injections of Alcohol.

W. D. Williamson, Portland

Abstract. Trigeminal neuralgia and its synonyms are used to designate a painful affection of one or more branches of the fifth cranial nerve.

Schlosser, an ophthalmologist of Munich, discovered that 70 or 80% alcohol injected into the nerve afforded relief in the majority of cases, the injection being made into the nerve where it comes through the base of the skull.

Modification of Schlosser's technique is now and has been for several years used by many physicians throughout this country with considerable success. Recently, some eminent physicians, advocating this treatment, recommended injecting directly into the gasserian ganglion through the foramen ovale.

Intestinal Toxemia.

H. H. Roberts, Poland Springs

Members who wish to offer voluntary papers or reports of cases are requested to communicate with the Program Committee, 148 Park St., Portland, Me.

Chap. X, Sec. 2. All papers read before the Association or any of the sections shall become its property. Each paper shall be deposited with the Secretary when read.

The members of the Maine Medical Association and their wives are to be the guests of the owners of the Poland Springs House and, as such, every arrangement will be made for the handling of all members coming by train, providing due notice has been given to some member of the Committee as to the probable time of arrival at the Poland Station. Automobiles will meet the trains as they come in and convey the guests to the hotel, where they will be allotted accommodations.

The usual program will be carried on for two days' session as outlined above. The annual banquet will be held on the first night and, later in the evening, an opportunity for dancing has been promised. This, with many other diversions, should make the 1915 session one of the greatest in the history of the Association.

*Incomplete program, subject to re-arrangement.

Circular for the Information of Persons Desiring to Enter the Medical Corps of the United States Navy.

A candidate for appointment in the Medical Corps of the Navy must be a citizen of the United States, between 21 and 30 years of age, a graduate of a reputable school of medicine, and must apply for permission to appear before a Board of Medical Examiners. The application *must be in the handwriting of the applicant*, and must be accompanied by the following certificates:

(a) Letters or certificates from *two* or more persons of good repute, testifying from personal knowledge to good habits and moral character.

(b) A certificate to the effect that the applicant is a citizen of the United States.

(c) Certificate of preliminary education: The candidate must submit a certificate of graduation from an accepted high school or an acceptable equivalent.

(d) Certificate of medical education: This certificate should give the name of the school and the date of graduation.

(e) If the candidate has had hospital service or special educational or professional advantages, certificates to this effect, signed by the proper authorities, should also* be forwarded.

The application will save unnecessary correspondence if he will make sure when submitting his application that the qualifications enumerated above are clearly and plainly described in his letters or certificates.

PAY AND ALLOWANCE TABLE.

Rank and length of service.	Pay per annum on shore.	Allowances per annum for quarters.	Total pay per annum on shore.	Pay per annum at sea.
Assistant Surgeons,* rank of Lieutenant (junior grade),	\$2,000	\$ 432	\$2,432	\$2,200
Passed Asst. Surgeons, rank of Lieutenant,	2,400	576	2,976	2,640
After 5 years in service,	2,640	576	3,216	2,904
After 10 years in service,	2,880	576	3,456	3,168
After 15 years in service,	3,120	576	3,696	3,432
Surgeons, rank of Lieutenant Commander:				
After 5 years in service,	3,300	720	4,020	3,630
After 10 years in service,	3,600	720	4,320	3,960
After 15 years in service,	3,900	720	4,620	4,200
After 20 years in service,	4,000	720	4,720	4,400
Medical Inspectors, rank of Commander:				
After 15 years in service,	4,500	864	5,364	4,950
Medical Directors, rank of Captain:				
After 15 years in service,	5,000	1,008	6,008	5,500
Surgeon General, rank of Rear Admiral,	6,000	1,152	7,152	6,600

*Assistant Surgeons, Medical Reserve Corps, *while on active duty*, receive the same pay and allowances as Assistant Surgeons, U. S. Navy.

County News and Notes.

ANDROSCOGGIN.

The April meeting of the Androscoggin County Medical Association was held at Mitchell's restaurant, Lewiston, Tuesday evening, April 6th. After a fine banquet, the president, Dr. J. W. Scannell, called the meeting to order for a short business session. He appointed Dr. B. G. W. Cushman, Dr. W. L. Haskell and Dr. W. E. Webber as a committee to draw up resolutions on the death of Dr. B. F. Sturgis, one of the oldest and most honored members of the association.

The speaker of the evening, Dr. John Lovett Morse of Boston, was then introduced and spoke in a very interesting and instructive way on the subjects, "The Treatment of Constipation in Infancy and Childhood," and "The Treatment of Enuresis." After the papers there was a general discussion.

E. B. BUKER, *Secretary.*

CUMBERLAND.

PORTLAND MEDICAL CLUB.

The fourth meeting of the year was held in the Columbia Hotel, April 1, 1915, with 23 members present. Drs. H. P. Merrill, Jr., and Dr. H. V. Bickmore were elected to membership. The club voted \$25.00 for the relief of the physicians in Belgium. The paper of the evening was by Dr. M. A. Webber. Subject: Why do the Laity fear the Hospital? He laid stress on the fact that the routine method of treatment, coupled with loss of individuality, was the greatest reason, to which was added the incompetence of the average male nurse. There was a great deal of discussion of the paper, which brought out many points both in favor of, and detrimental to a patient's going to a hospital.

HAROLD J. EVERETT,

Secretary Pro-tempore.

CUMBERLAND COUNTY MEDICAL SOCIETY.

The regular stated meeting of the Cumberland County Medical Society was held on Friday evening, April ninth, at the Falmouth Hotel, Portland. Seventy physicians were in attendance.

The names of Dennis J. O'Brien and Wyvern A. Coombs were submitted to the Board of Censors for approval, their applications for membership having been received.

Dr. Webster and Dr. Vanamee both spoke on the question of pure milk, advocating the establishing of a Milk and Dairy Commission which would ultimately have direct supervision over some one dairy

and dairy-man, making it possible for the city to have certified milk.

Dr. S. P. Warren moved that the Society donate the sum of twenty-five dollars to the Belgian Red Cross fund which was immediately voted. The Secretary has since received a letter from Dr. F. F. Simpson, Treasurer of the fund, acknowledging with thanks the receipt of this gift of money.

The paper of the evening was read by Dr. Fred A. Albee of New York. No more interesting subject has been presented to the Society than this. The subject was "The Original Use of the Inlay Bone Plate in Surgical Treatment, with a Report of 400 Cases." Illustrated by many excellent lantern slides. Aside from the technical aspect of the paper, Dr. Albee demonstrated the use of several mechanical devices, original with him, used in the making of the bone plates or grafts. Following the meeting, a delicious lunch was served. Music and entertainment, as usual, was offered.

ADAM P. LEIGHTON, JR.,

Secretary.

Abstracts from Current Literature.

(Journal A. M. A., March 6, 1915.)

A Study of the Commercial Preparations of *Bacillus Bulgaricus*.

By Arthur J. Bendict, M. D., New York.

Conclusions:—The majority of the preparations of *Bacillus Bulgaricus* contain only a small portion of the number of living organisms that the manufacturers represent. Many of the preparations as sold at retail are sterile, containing no living bacilli of the *bulgaricus* type or any other living organism.

The majority of organisms as seen in a stained specimen are *dead* and hence of no significance.

Broth cultures obtained *direct* from the manufacturers are the best preparations. Yet, it appears that all such preparations are not reliable, as example. Liquid, broth culture, in small bottles bought from retail druggist, Nov. 24, 1914. Expiration date, Dec. 28, 1914. Immediate plating showed a count of 6 per cubic centimeter and 13 days later, three separate examinations showed the specimen to be sterile.

Tablets are useful if the product is to be conveyed a considerable distance. Some are potent, many are sterile, and some are heavily contaminated.

From this study it appears that a few weeks, about 3 or 4, is

sufficient time to render any product, whether liquid or tablets, sterile or nearly so and consequently worthless.

R. F. CHASE.

(Journal A. M. A., March 6, 1915.)

Clinical Experience with Liquid Paraffin (Liquid Petrolatum).

By W. A. Bastedo, M. D., New York.

The object of this clinical investigation, carried out by Barker, Bastedo, Champion, Christian, Drinker, Hatch, Stengel and Wilbur was to determine the comparative values of "Russian Mineral Oils," a light and a heavy preparation, and an American product.

Dosage. — The dose of either preparation is from half an ounce to 3 ounces.

Palatability. — The slight difference in taste is considered a negligible quantity.

Stomach Effects. — In about 20 of the patients, all the oils produced a slight degree of nausea or tended to repeat.

Leakage about Anus. — A disagreeable feature is that when enough oil is taken to move the bowels, there is sufficient leakage about the anus to keep the neighboring skin continually in a greasy condition, and sometimes to stain the clothes. No difference between the oils in this regard was determined.*

Summary. — The results of this investigation appear to warrant the conclusion that so far as therapeutic results are concerned, the differences in the action of the varieties used are too slight to be of importance. Here endeth the mysterious virtues of "Russian Mineral Oil."

*In some patients, stools of free oil occurred at times. This necessitated the reduction of the dose and the administration of cascara or aloin.

R. F. CHASE.

(Surgery, Gynecology and Obstetrics, March, 1915.)

Extraperitoneal Caesarian Section.

By J. Samuel Lawrence.

The writer states that he uses the Tweedy technique, as follows:

1. Pfannenstiel's incision of skin and fascia.
2. Longitudinal separation of recti.

3. Transverse incision of parietal peritoneum and of that covering the uterus and the uterovesical fold, which is stripped back from the uterus for some distance. The margins of the parietal and uterine peritoneum are then brought together with a running stitch, thus closing off the peritoneal cavity. The rest of the procedure is that of the classical operation. This extraperitoneal method is indicated

especially in those cases when vaginal examination or instrumentation has been made before Cæsarian was decided upon.

H. F. TWITCHELL.

Ether in Surgical Therapeusis.

The British Medical for February 6 contains a valuable paper by Herbert Waterhouse of London, on surgical uses for sulphuric ether. During an operation some five years before, on a pus case, the author had cut a finger. Wrapping it in gauze, he completed the operation on a gangrenous volvulus, and then he proceeded to rub his own abrasion with ether and to hold it in ether for ten minutes. The patient died, but the surgeon had no farther trouble with his finger. Encouraged by this aseptic action of a chemical not previously used in this way, the writer carried on repeated tests. He used it, for instance, in the case of a farmer gored in the buttocks by a bull. The patient was turned over, and a pint of ether used in cleansing the jagged wound and filling it full of ether. The wound healed rapidly. A drunken fellow sat too heavily on a chamber vessel and met with a serious wound. The numerous incisions were successfully treated with ether. Since then, Mr. Waterhouse has used ether in psoas abscesses, pus appendix cases, compound fractures, tuberculous glands (here the ether was injected hypodermatically) tuberculous synovitis, and sinuses, generally, as well as in injuries of the scrotum and in the axilla. Moreover, favorable reports by Jeanneret and Morestin in Paris have encouraged him to keep on with the use of ether in all infective conditions of the peritoneal cavity, acute arthritis, and septic gunshot wounds. Fifty-nine patients with peritoneal infections were treated with but TWO deaths. Drainage tubes are used, and the ether then poured in, the tube is closed tightly for four hours and then opened for drainage as usual. The best way to do this is to clamp the outer end, or tie the tube, and the margins of the incision are closely sutured around the tube. The effect is due to the antiseptic power of ether in inhibiting or killing microbes, the tonic action on the circulatory and nervous systems, and stimulation of the defensive powers of the tissues involved in the injury or disease.

J. A. SPALDING.

Correspondence.

Chicago, Ill., April 22, 1915.

John B. Thompson, Sec., Maine Medical Assn.,
109 State St., Bangor, Maine.

Dear Sir:—In accordance with a personal request from Dr. J. R. Pennington, Chairman Transportation of the A. M. A., the Chi-

cago Medical Society herein extends cordial invitation to the members of the Maine Medical Association to join Special Train Party leaving Chicago, Minneapolis, St. Louis and Memphis, June 17th, merging at Belleville, Kansas at 6.15 P. M., June 18th. Thence C. R. I. & P. R. R. to Colorado Springs, D. & R. G. to Salt Lake, Western Pacific to San Francisco, arriving June 21st.

We ask please that the enclosure which sets forth what Tour includes, be read to the members in Convention assembled, and placed in the hands of the Secretary with the request, that it appear in the May and June issues of your State Medical Journal.

Owing to the vast number of people that will attend the Exposition, as evidenced by the unusually large attendance that has already commenced to move (more than double that to both the St. Louis and Chicago Expositions), the importance of having actual room reservation guaranteed by a responsible Company, together with the comfort and convenience, justifies us in congratulating ourselves that we have been able to make such satisfactory arrangements, with GREGORY TOURS, who are the officially appointed "Tour Agents" to the Exposition.

In order to secure hotel accommodations in connection with the service outlined, it is necessary to communicate at once with Dr. R. R. Ferguson, 3923 North Keeler Ave., Chicago, Ill.

The Portland, Me., rate is \$177.60 for the same service, via Grand Trunk.

Yours very truly,

CHICAGO MEDICAL SOCIETY.

Per DR. R. R. FERGUSON,

Chairman Transportation Committee.

LEUCOCYTE EXTRACT, SQUIBB

Prepared from healthy leucocytes according to Hiss. Indicated in general acute systemic infections where bacteriological diagnosis is uncertain. Also used in conjunction with the specific serums and vaccines in the treatment of Erysipelas, Meningitis, Lobar Pneumonia, Septicemia, Pyemia and Furunculosis.

No contra-indications are known. For clinical reports address:

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*PSYCHOSES FOLLOWING SURGICAL OPERATIONS.

By DR. F. L. HILLS, BANGOR.

The etiology of insanity is varying and often obscure. It is always complicated, and seldom, if ever, is it possible to lay your finger upon any one thing and say "this is what caused this man or woman to become insane." The mental reaction to any excitant is as diversified as is the human character or physiognomy, and no person will react in just the same way to any given happening, whether in the nature of a physical, mental or moral trauma. What affects an individual one way today may next week produce an entirely different effect, depending upon his changed bodily health or mental outlook. In studying the etiology of insanity, we must, to some extent, look into the psychology of the individual, ascertain his normal mental attitude toward his particular environment, and try to get some insight into the working of his mind while he was still sane. His ancestry, his environment, his education, and his mental habits must all be taken into consideration before we attempt to estimate the importance of the thing which stands out big in the minds of the patient or his friends, and which, to superficial observation, would seem to be the causative factor of the psychosis. The more carefully we delve into the patient's past history and inner life, the more apt are we to find the real ground work upon which the alienation has developed to a point where only a spark was needed to light the tinder and cause it to flame up with perhaps explosive violence.

*Read before the St. Croix Medical Society.

The psychoses developing after surgical operations are seldom, if ever, due solely to the operation. They occur in neurotic persons, in whom there is a marked insane heredity or a congenital mental defect of sufficient degree to be evident in a carefully obtained history. Acting upon this as a foundation we get such psychological causes as the fear of the operation, fear of death, dread of the anæsthesia, the mental excitement which often precedes an operation, and in the case of mutilating operations upon the sexual organs, the fear of becoming unsexed, the disappointment of being unable to bear children, the loss of sexual power, etc., all these things producing a profound disturbance in the mind predisposed to insanity. Other causes operating in the production of the so-called post-operative psychoses, are loss of blood, shock, anæmia, and exhaustion from prolonged and perhaps painful disease, prior to the operation. It is not probable that a previously healthy individual will ever develop an insanity following an operation, not even excepting insanities of an infective-exhaustive type.

A careful inquiry and study of the history will, I think, generally show that the psychosis was either already developed and unrecognized, or was developing prior to the operation, and that the latter served merely as the excitant needed to precipitate the full-fledged development of the attack.

The late Dr. S. Weir Mitchell once said: "In a case of grave hysteria following operation, we must consider the patient as a loaded gun and that the surgeon merely pulls the trigger." This is an apt figure, applicable to most of the cases of insanity following operation. Dr. J. Chalmers DaCosta says: "in all cases of post-operative insanity, there is a predisposition, hereditary or acquired. A normal, stable brain will probably never go insane after the operation unless that operation attack the brain, testicle or ovary." Says Dr. Edward N. Brush: "it may be assumed that there is no post-operative insanity *per se*. Insanity follows operations sometimes, but it manifests itself in various forms. The personal or family history in a given case is so difficult to obtain that we are not at all sure how far mutilation plays a part. This naturally arises from lack of clinical experience in psychiatry on the part of many observers of these cases. Before we can study intelligently post-operative mental disturbances we must have the histories of our patients carefully recorded. From lack of this knowledge post-operative insanity is often erroneously attributed to the operation, when in reality the condition may have been present preceding the operation." Dr. Charles K. Mills states, in his experience, "these insanities occur in women of certain temperament and who show certain predisposition, rather than in those of a neurasthenic type." Dr. Francis X. Dercum says "the great role played

by the neuropathic in post-operative mental disturbances, should discourage operation in such subjects except under circumstances of grave necessity." It is the opinion of Dr. Howard A. Kelley that these psychoses are due to the mental shock of the operation, and not necessarily to any particular kind of operation. They are due, he says, rather to the attitude of intense expectancy, even dread, inspired by a new and untried force with which the patient feels she has to cope. In an article entitled "Surgical End Results Following Major Surgical Operations," Dr. James G. Mumford comments upon the large percentage of cases showing marked psychical after effects in spite of the success of the operation from a surgical standpoint. Reviewing the end results in some 129 cases, 7 to 9 years after the operation, he states that "30% of the men, in whom operation was upon the genitals, showed a psychic disturbance, but no such disturbance became manifest in the non-genital male cases; and further, while three-fourths of the operations in the women were on the sexual organs, both sexual and non-sexual operations showed a nearly equal percentage—35% — of psychical failures, and that in both sets of operations the psychical failures far outnumbered the anatomical failures. Women appear to be poor psychic risks after operations, but somewhat worse after sexual than after non-sexual operations." None of the cases reported by Dr. Mumford were insane, but they are cited merely as tending to show how readily an operation may become an exciting factor in the person of a predisposed individual or in the presence of a latent psychosis.

Dr. Richard Dewey writing upon "Insanity Following Surgical Operations," and citing ten cases of his own and thirty-eight collected from colleagues, says that "no possible combination of outward circumstances will produce insanity in certain constitutions because the predisposition is lacking, while comparatively slight causes will suffice in an unstable or neurotic temperament." In thirty-one of his forty-eight cases, operations were upon the female genitalia. In regard to the development of insanity after ovariectomy, he says "a certain contingent of these cases consist of highly neurotic women naturally prone to insanity, in whom any profound disturbance of nervous relations may produce it." It is a question often of accident as to whether the insanity follows the operation or the operation follows insanity, undertaken as the operation has been with the hope of cure. Such patient on the one hand may be operated upon to relieve insanity, and on the other hand, may be thought to have been made insane by the operation, while the most efficient factor is lost sight of in both cases, viz., the nervous instability of the subject.

I would also quote the opinion of another neurologist, Dr. Græme M. Hammond. He says "my position on this subject is that the ovaries and uterus have nothing to do with the preservation of the integrity of the brain, and that their removal alone never causes insanity; that insanities which follow operations on these organs depend upon a hereditary tendency to insanity, psychologic causes and the physical causes and surgical shock already referred to, but that the principal cause is the congenitally defective brain."

While it is somewhat aside from the subject, it may not be out of place here to mention gynecological surgery which has been so extensively done upon insane women in the past twenty years with the expectation of thus curing insanity. All these hopes of the alienists and the expectations of the surgeons have not been realized, and most disappointing have been the ovariectomies for removal of normal ovaries in the neurotic and insane, the futility of which is, I think, now recognized by both gynecologists and neurologists. Dr. Robert T. Edes, some years ago reported twenty-eight cases of oophorectomy, for functional neuroses coming under his observation, in but two of which was any improvement manifested, and in one of these the operation was a doubtful benefit. Likewise, the results of normal ovariectomy in insane women have not been favorable, and the mental condition — if not aggravated — has certainly not been benefited by the operation. As to pelvic operations or any other operations upon insane women for relief of diseased conditions, I have no hesitancy in saying that they are always justifiable for the relief of the physical condition and for the sake of giving the patient every opportunity to attain that degree of physical health which will make her mental recovery more probable, but I do not believe that the results have been such as to warrant the surgeon in holding out the hope of a cure of the insanity. While cure or material benefit of the mental condition does sometimes follow, yet the percentage of cases showing even a moderate mental improvement is so small as to render it unwise to make this possible result the avowed object of the operation. Rather should we justify the operation on the grounds of the physical benefit which will follow any needed operation as readily in the insane and in the sane.

The records of the Bangor State Hospital for the last five years show about twenty-five cases in which a surgical operation has been done at some time prior to commitment. In nine of these the mental symptoms were so pronounced within six months of the operation as to lead to the consideration of it as an etiological factor.

Case 1. P. L., a married woman, 29 years of age; occupation housewife; common school education; married at 20. She first men-

struated at 19 years of age and menstruation was regular. She had no children; no miscarriages. She was operated on in January, 1910. Previous to the operation she had complained of backache and pain in side for about six years. For at least two years before the operation there were symptoms of pelvic inflammation, according to her own statement: Previous to the operation, she had been depressed and nervous. The operating surgeon states, "she was considered insane before the operation," and the nurses were warned to watch her, probably as a precaution against suicide. At the operation, a long adherent appendix was inverted, both Fallopian tubes were found diseased,—evidently from an old infection,—both ovaries were cystic to such an extent that it was impossible to save a piece of either. Both uterus and ovaries were bound together in the posterior cul de sac, by adhesions. The tubes and ovaries were removed and a ventral fixation of the uterus performed." She was in the hospital one month and returned home in good health mentally and physically and took up her household duties. Within a few months she became nervous and in June began to show mental symptoms. She felt like moving around quickly, talked a great deal, heard voices and imagined people were going to injure her or take her away from home. She thought people were making fun of her. She remained in the house and would not see callers or mingle with people to any extent. Early in August, after a sleepless night, during which she had a severe headache, she took some tincture of iodine, diluted it with water and began to drink it. Said something told her to stop it; she swallowed no more. A doctor was called, who washed out her stomach. She was despondent and cried a good deal; thought her husband wanted to get rid of her. On admission to the hospital, August 15th she was depressed, apprehensive, reticent and fearful of bodily harm. She showed some retardation in her responses to questions. Said she saw a man murdered on the road behind the hospital and feared she was to be killed. Thought she was accused of murdering her relatives. She remained apprehensive, suspicious of all about her for many days and had hallucinations of hearing, gradually coming out of this condition and beginning to chat with the patients. In about two weeks would allow physician to approach her and would converse with him. She laughed and joked with the patients and appeared to have returned to what was probably about her normal mental condition. She was paroled in the custody of her husband, but was returned to the hospital a month later with a recurrence of the depression and fear reaction. She improved gradually during the next six months and left the hospital. She has remained away during the last four years.

We have here a case of depression, probably a phase of manic depressive insanity, coming on about six months after the operation in a woman run down by a prolonged pelvic disease, and who was nervous and showed definite signs of depression.

Case 2. F. M. M., married woman, 29 years of age; housewife; common school education. There is no history of insanity in the family. She has had two sisters, both of nervous temperament. Menstrual history normal except for dysmenorrhea. She worked in a laundry four years before her marriage, which occurred in her 25th year. She has had one child, a boy $2\frac{1}{2}$ years old. On June 21, 1910, she was operated on for rectal fistula. She made a good recovery from the operation. Four months later she became discouraged and blue, to such an extent that her husband put away his razors so she could not get them. One day she jumped up in a foolish way and seized a knife, saying "I am going to end it all." She tried to make light of her condition but her husband states that it was really more serious than she tried to make it appear. On November 3, 1910, she was operated upon. The appendix was removed, uterus curetted, laceration of the perineum and cervix repaired. The day after the operation she told her husband that she got out of bed, went into the bathroom at the hospital and came near drinking some wood alcohol. She told the nurse that there was no need to stay with her, but the following morning they found a razor under her pillow. She would jump out of bed and believed that she and all her family were to be tortured for not telling the doctors that she had a cancer. For a few days, she imagined she had been very sinful and was to be punished for not having confessed. She was committed to the insane hospital, November 13th, 1910, ten days after the operation. She appeared weak and much depressed. There was a marked conduct disorder, due to active auditory hallucinations. She heard a voice, as if someone in the basement was telling her to jump out of the window, to give herself up for her sins, etc. Would pound her head against the window until her forehead was black with bruises, and continually tried to crawl under the window guards, once succeeding in getting her legs and body out under one of them. She exclaimed over and over "Oh, my God, if I had only known it before." Said the Lord told her to beat her brains out. She took nourishment well and obtained some sleep, after being quieted by cold packs of two or three hours' duration. This agitation continued almost two weeks and during it she was apparently disoriented for time, place and persons. On November 30th, she recognized her husband, talked and seemed pleased to see him. On December 11th, she developed a temperature running up to 104 degrees, which continued for a week. She then became much de-

pressed, crying occasionally, showing retardation, and passing into absolute mutism. Later she developed a catatonic stupor with mutism, increased muscular tension, tendency to cataleptic, wax-like flexibility of the limbs, but was compliant and would do simple acts slowly in response to commands. This case appeared at first to be a manic depressive psychosis, but her subsequent course established the diagnosis of dementia præcox.

Case 3. G. E. S., a divorced woman, 39 years of age; waitress. Her father is living at 67. Mother died of tuberculosis at 41. She has three sisters dead, three sisters and two brothers living. There is no history of heredity. She left school at 17 and was married soon after, living with her husband eight or nine years. Her husband was alcoholic and abusive, and her married life was very unhappy. Had one child, a daughter, now 26 years of age. After separating from her husband, patient worked in a restaurant in Boston. There is a history that she had not been well since the birth of her child, but no facts as to her condition up to the time of her operation could be obtained. She was committed to the Bangor State Hospital, October 21, 1910, with the following history: Three months before, she was operated on at the Homeopathic Hospital in Boston, the ovaries and appendix being removed. Nothing is known as to her condition or movements from that time until she went to her sister's home in Bangor three weeks before her admission to the hospital. For the first two or three days her sister did not notice much the matter with her. She then refused to go to the table to eat. Showed much depression, was very poorly nourished and in an exhausted physical condition. She was sent to the Bangor State Hospital where she appeared depressed, showed psychomotor retardation, expressed the fear of being poisoned and persistently refused food, being resistive when attempts were made to feed her. She was well oriented, appreciated her surroundings and was not suicidal. On admission to the hospital it was stated that she had taken but little nourishment for fourteen days. She was profoundly depressed, rarely spoke and refused food absolutely. She was tube fed much against her will, making active resistance during the process and promising to eat, but never keeping her promise. She expressed the fear of being poisoned or being killed. From October 21st to February 1st, she remained in bed, quiet, indifferent, mute and somewhat resistive. She steadily refused food and was fed most of the time with a nasal tube. Early in February she began to eat, was dressed and sat up in the ward during the day; within a week gained four pounds in weight. She gradually sank into a catatonic stupor, became mute, neggativistic, untidy, and has so remained. The diagnosis in this case is dementia præcox.

Case 4. M. A. D., married woman, 24 years of age. Married two years without children, and had no miscarriage. There is no history of syphilis and husband denies having had syphilis. She is of a nervous temperament and has never been strong. She left school at thirteen years of age and went to work as a clerk in a florist's shop and in various stores in Bangor and Boston until her marriage. There is a strong probability that she lived a rather irregular life for a number of years before marriage, but the history obtainable has not thrown much light upon her past. Her husband states that he met her one year before marriage, and that in his opinion she had always been weak mentally, of a sort of childish nature, not as bright and intelligent as the average woman. In September, 1909, she had a convulsive seizure during which her mouth was drawn out of shape; she tried to talk but could not, and kept making motions with her hands. The attack lasted for about two hours, and it was about two days before she again appeared normal. Her husband has noticed a gradual increase of speech defect during the past nine months. This was noticed when she was excited or talking with anybody. She has grown slack about her household duties and in the care of her person and shown an increasing lack of judgment in her expenditures and her cooking. In September, 1910, she was operated upon at the Eastern Maine General Hospital. The appendix and right ovary were removed. The day following the operation she got up and attempted to get another patient out of bed; manifested considerable excitement for a few hours. Following this, her convalescence was uneventful and she returned to her home in Waldo County in very good condition. After the lapse of a few weeks, she showed definite signs of mental failure, more marked speech defect, forgetfulness and inability to do her household duties. Hallucinations of hearing developed and she would go about listening at the windows and doors. She slept well and ate heartily, not knowing when to stop. On admission to the hospital, December 24, 1910, she showed most marked muscular tremor, inability to stand steadily in Romberg position, slight nystagmus, inequality of the pupils and exaggerated reflexes. She was actively hallucinated and had various delusions. She states that both she and her husband were operated on at the General Hospital at the same time, and the doctors put negroes into their abdomen and their head. One day she refused to eat because she heard the cook say that morphine had been put into the food. A lumbar puncture was performed and the cerebro-spinal fluid gave a positive Nagouchi reaction and showed a greatly increased leucocyte count. The case was diagnosed as one of paresis in a well advanced stage.

Case 5. M. N., a married woman, 29 years of age. Admitted to the hospital August 18, 1910. Her mother was of an hysterical temperament. There is no history of insanity in the family. Patient had a twin brother who died in infancy; cause of death not ascertained. Patient had a high school education, was of quick temper and high strung. She was married at 19. Has had no children, but one miscarriage six years ago. She has had no illnesses and her habits were good. Menstruation has been irregular since marriage. According to the history the onset of psychosis was sudden in November, 1909. She saw lions and bears, also soldiers, to whom she would talk but never got any replies. These hallucinations would last one night, or a day and a night, and then clear up. She would then talk all right, but would keep rolling her eyes. After two or three days would again be hallucinated. She was unable to attend to her housework. January 29, 1910, she was operated upon at the Augusta City Hospital, the appendix and right ovary being removed. While in the hospital and for several weeks after discharge, no mental symptoms were noted. About May 1st, went to Waterville, and was in the home of a morphine habitue. While there she got hold of some morphine pills and took an overdose. She slept thirty-three hours and when she awoke her tongue was swollen and mouth was very sore. Was taken to her home in Dover and grew rapidly worse. Was at times excited, talking and laughing; thought she was killing someone or someone was killing her. Turned against her husband; thought he was punishing her to save someone else. When admitted to the hospital in August, she was much exhausted, hallucinated, dazed and talked incoherently, often muttering unintelligibly. As she gained in strength she became very resistive, showed a constant changing of mood, had various vague hallucinations and refused food, necessitating feeding with nasal tube. Occasionally she became agitated, pounding herself, pulling her hair and saying she was crazy. One day asked nurse for ether to put her to sleep; again, tried to choke herself with her night dress; begged the nurse to cut her throat or kill her; at other times thought the place was on fire; thought her bed was going around; thought that she saw burning bodies piled up, around and under her, and that she was lying on top of them. She gradually improved, and in about the middle of October was able to be up and about the ward. Her conduct became more orderly, and there were days when she was fairly clear and would talk cheerfully. She continued however to have frequent outbreaks of violence, during which she was very destructive and noisy. She was uncommunicative, but when induced to talk her conversation was disconnected, and her replies to questions generally irrelevant. She showed many man-

nerisins in action and speech. This condition persisted for ten months, at the end of which she developed a mild attack of typhoid fever which ran an uneventful course. During convalescence she had a severe attack of angina pectoris. It was subsequently learned from her husband that she had had similar attacks for many months before coming to the hospital. Her physician had given her morphine hypodermically for eight months before her admission, and she was often out of her head for twenty-four hours after taking morphine. Her mental symptoms passed away during the attack of typhoid, and she remained perfectly clear after convalescence. She was discharged recovered, and has remained well. There were many features of this case, making the diagnosis unclear, but it was finally classified as a condition allied to manic depressive insanity.

Case 6. A widow, aged 26. There is no insanity in the family. The mother died when the patient was born. Menstruation, which was established when she was 14, was never regular, intervals often being from two to six months, and occasionally one year. At fifteen she married a man who was dissolute and a drunkard; left him after one year. After her separation she worked in various places as waitress and housemaid in Massachusetts and in Maine. One man who has known her since she was a child, states that she was always headstrong and unmanageable and always somewhat peculiar, although he is unable to give a good description of her peculiarities. Her brother states that about three months before her commitment, December 17th, she came to his home in Belfast, broken down in health, and that she had always been of a frail constitution. A few days after her arrival she was taken sick and a doctor called, who said she needed an operation. Was sent to the Eastern Maine General Hospital, October 25th, where the appendix and one ovary were removed, the latter on account of cystic condition. She left the hospital in good condition thirteen days later and returned to Newport where she had worked during the summer. There is a suspicion of her having had a love affair with the son of her employer, based chiefly upon a love letter which she wrote about a week after her commitment. Three weeks after her return to Newport, early on the morning of November 25th, she drank oil of cedar, with suicidal intent. Said she took it because she felt blue and had nothing to live for. She convalesced from the effects of the oil of cedar in a day or two and was sent to the home of her brother in Belfast. On December 6th, she again took oil of cedar with suicidal intent. Brother states that she would talk all right at times, then again her mind would wander from one thing to another, and she would do a lot of things that no one in their right mind would do. Before going to the General Hospital, she seemed

a little weak minded and has been more so since going out. She was admitted to the Bangor State Hospital, December 9th. She was quiet, orderly and well oriented, but showed certain indifference and emotional instability. She would not talk freely, there was a marked surliness in her conduct, she showed no real appreciation of her situation and was inclined to make light of her suicidal attempts and of her commitment. She was restless, getting in and out of bed, and in a few days was dressed and allowed about the ward; was constantly in motion, talking with the nurses and patients, laughing, sometimes dancing. When questioned was reticent and seclusive. After being in the hospital a week, she wrote the following letter which is here given, not so much that it may serve as a model of its kind, but that it may throw a little light upon her case:

Dear H. —

It's going on two weeks since I came to the hospital. Tell your mother and aunt I'm getting along fine. Am awful blue today. H——, this is the last letter I shall write to you. I have myself to blame, but of course we can't help feeling sorry sometimes for what we have done. Your picture is still in the locket and will always remain there. My luck is hard, but then, I wonder if it calls for laughter or for tears. This is splendid audacity of the soul that gives us strength to stand among the wrecks of human life, and which in the face of human law pleads our right to love and happiness. And yet, is not inexorable law but another name for the eternal justice that measures to every man his just deserts? And who but the fool dare say that eternal justice is a dream, for "now abideth faith, hope and love, these three, but the greatest of these is love," and if faith and love fail not, surely the love that is stronger than death shall one day find its own. You remember your asking me if I would write you a good love letter. This is the best I can do. Love to all. Yours sincerely,

M. C.

In spite of the above letter she persistently denied any love affair and was not at any time frank in her conversation with the doctors. While in the hospital she made a great physical improvement, but her mental condition showed no change. She was moody and irritable at times, changeable and impulsive. There was no evidence of delusions or hallucinations. She was of inferior make-up and seemed to be suffering chiefly from a simple depression, hard to classify. The diagnosis was not clear. After being in the hospital four months, she was discharged and has now been away nearly four years.

Case 7. H. F. O. Single; age 41; heredity good; dress-maker by occupation; worked 20 years in one place; naturally lively and cheerful. For six months before operation had abdominal soreness

and slight vaginal discharge. Menstruation regular; profuse. Was nervous, depressed, run down physically for several months prior to operation of February, 1912. Both ovaries were removed and uterus curetted. Soon after operation, became profoundly depressed, secluded herself, accused herself of extreme wickedness, believed people thought her a bad woman, thought her money was gone and the family would be sent to the poor-house. Her mind was occupied with distressing thoughts, and she had visions of an obscene nature. She imagined people were watching her and her sisters and commenting on her conduct; thought men were looking at her at night; thought that all the work in the hospital had stopped because of her admission. Was correctly orientated, and had some insight, appreciating the fact that she could not think or act normally, but said that her wickedness was the cause of her trouble, rather than any physical illness.

She felt that she was blamed for everything that happened; if an article was lost, a piece of furniture scratched or broken, or if anything went wrong, she was accused. She could not apply herself to any work but spent her time crying, lamenting and wringing her hands.

The depression gradually decreased, she became less demonstrative, and in a few months was able to engage in work in the sewing room. From this time she steadily improved and was paroled at the end of four months, much improved. She made a good recovery and has had no relapse. The diagnosis in this case was a manic depressive insanity.

Case 8. C. J. R., a married woman, 39 years of age. Her mother was insane a short time before death in old age. Patient had three children, two of which died in infancy. All her life she has been sickly and hypochondriacal. In July, 1912, an appendectomy was performed and the uterus was suspended. She was in the hospital six weeks. Upon returning home it was noticed that she was easily confused, misidentified people, and showed a poor memory for recent events. At times she was stuporous; four months later had some sort of a spasm and appeared to be unconscious. A physician who was called said this patient was shamming. For several weeks before admission to the hospital in November, 1913, she was very weak, untidy, had difficulty in walking, talked in a silly manner, and complained of headache. When she came into the hospital she appeared very ill. She was emaciated, showed marked mental confusion, clouding of consciousness, apathy, disorientation and memory impairment. For several weeks she showed marked anxiety, mental depression and confusion. She gradually gained in weight and strength and a mental improvement was coincident with the physical gain. She made a good

convalescence and was discharged recovered at the end of three months. Diagnosis infective-exhaustive psychosis.

Case 9. R. F. W., a divorced woman, 24 years of age. She was married when 20 years old to a man who was dissolute and who infected her with gonorrhea. She had a miscarriage when six months pregnant and this was followed by a pelvic inflammation. She was ill for five months with this pelvic disease, and was then operated upon, the uterus, tubes, and ovaries being removed. Soon after the operation, she became extremely depressed, was irritable and difficult to get along with, thought people were against her and nobody cared for her. A year later she developed numerous attacks of a hysterical nature, during which she was violent, combative and threatening. These attacks were always precipitated by the mention of her husband or her home troubles; has been particularly abusive and violent toward her mother. On admission to the hospital she was nervous, moderately excited, rather suspicious and evasive in answering questions. She remained one month, and during this time, there were no hysterical manifestations and her only mental symptoms were an evasiveness in replying to questions, a certain suspicion of her relatives and a slight paranoid trend. She left the hospital improved physically, and has not been heard from during the past three years. The history as obtained showed no marked nervous disorder prior to the operation, but it was later found that her nervous condition about one year before the operation was such as to cause the attending physician to ask an alienist in consultation. She appeared to be suffering from a psycho-neurosis, hysterical in character.

The cases of these nine young women have certain points in common. In six, there is a definite history of mental disturbance of a well marked character prior to the operation. One was nervous and depressed, one gave history of erratic conduct, and in one the condition before operation was unknown. In four cases, the appendix and one ovary were removed; in three both ovaries; in one there was an appendectomy and uterine suspension, and in one, in addition to appendectomy there was a trachelorrhaphy and perineorrhaphy. The mental symptoms were suggestive of a manic depressive type of insanity in two of the cases, and dementia praecox in three, paresis in one, infective-exhaustive psychosis in one, and simple depression or a psycho-neurosis in two. In all of them pronounced mental symptoms necessitating commitment developed rather suddenly within a few months after the operation. While in but one of them has it been possible to get a history of insane heredity, yet I think we can readily see in all of them a nervous, unstable equilibrium existing prior to the operation and that we may regard them all as persons predisposed

to insanity if not actually insane before the operation, and persons in whom the mental and physical shock of the operation was, as it were, the pulling of the trigger which caused the explosion.

I would not classify these cases as post-operative psychoses because I do not think there is such a clinical entity. You may get any type of insanity as a sequel to an operation in a predisposed individual, anything ranging from a simple depression, transitory delirium, or an infective-exhaustive psychosis to a most profound and lasting insanity, and we cannot do more than say that the operation was one of the factors, but not the only factor in this development. As to the prognosis of the cases reported, it is the prognosis of the type of insanity to which each case belongs. They are not favorable for recovery, but return to a fair degree of mental health may reasonably be expected in three of them.

The question of prophylaxis is of interest in connection with these cases. Whether it is possible to avoid the development of the psychosis by the early recognition of the insane predisposition and the employment of means before or at the time of the operation to guard against a mental breakdown. Kaiserling advocates hydrotheraphy in the treatment of neuroses and hysterical conditions following gynecological operations, and states that prophylaxis lies in the hands of the gynecologist. It is important, says Howard Kelley, for the surgeon to be able to inspire confidence in the patient, so that she feels that he is a moral support and also that the utmost care to be taken to minimize the unpleasantness of the operation. He also advocates making conditions surrounding the patient after the operation as natural as possible, and the keeping of the patient out in the sunlight on the porch when practicable.

It would seem desirable to inquire carefully into the patient's history previous to any operation to ascertain particularly the presence of the insane heredity or diathesis, the patient's temperament and psychical reaction to previous physical and mental strains. The mental condition of a patient is not often taken into account by the surgeons, particularly the mental condition just previous to the operation. A delay of a few days or weeks before operation in a case presenting active signs of mental disturbance with physical exhaustion, might at times save the later development of a psychosis. A short course of hydrotherapeutic treatment with rest in bed and with supervision of a cheerful, tactful nurse who has some knowledge of mental cases, might, I think, have a prophylactic value in these conditions.

SYMPTOMS AND THEIR INTERPRATION.

BY JAMES MACKENZIE, M. D.

ABSTRACT BY J. H. JAMIESON, M. D.

The symptom chiefly discussed by Dr. MacKenzie is pain. He defines pain as a "disagreeable sensation due to stimulation of some portion of the cerebro-spinal nervous system and referred to the peripheral distribution of cerebro-spinal sensory nerves in the external body wall."

The appreciation of pain is a function of the cerebro-spinal system only. The viscera, supplied by the sympathetic system, are insensitive. In animals, the viscera may be cut and cauterized while the animal goes on unconcernedly eating its food. In laparotomies on humans, it has repeatedly been proved that the viscera are insensitive. The testicle is an apparent exception, the explanation being that the tunica vaginalis testis has a sensory nerve supply from the cerebro-spinal system, namely, the genital branch of the genito-crural.

If the viscera are insensitive, how is it, then, that visceral disease produces pain?

In normal conditions a succession of stimuli is continually passing from the viscera by the afferent sympathetic nerves to the spinal cord and gives rise to no appreciable sensation. If, however, on account of a morbid process in any viscus, an increased stimulus passes by the afferent nerves to the spinal cord, this stimulus may be of a kind that affects neighboring nerve cells, and these nerve cells react according to their functions; a sensory nerve by producing pain; a motor nerve by contraction of certain muscles; a secretory nerve by causing an increased flow of its peculiar secretion and so forth. When such stimulation affects a sensory cell nerve, pain arises which is referred to the peripheral distribution of the nerve so stimulated.

If an abdominal organ is diseased, stimuli pass from it by afferent sympathetic nerves to the spinal cord where it affects the cells lying in the neighborhood; thus, sensory cells are stimulated and pain is perceived by the brain and referred to an area over the abdomen corresponding to the peripheral distribution of the cerebro-spinal sensory nerves that proceed from the affected segment of the cord. This is known as the viscerosensory reflex. Similarly, motor cells are stimulated and tonic contraction occurs in the muscles of the abdominal wall in an area corresponding to the peripheral distribution of the motor nerves proceeding from the affected segment. This is the visceromotor reflex. Then further, the stimulus may spread to special cells connected with other viscera, as for example, in appendicitis, where cells connected with the bladder may be stim-

ulated, producing frequency of micturition; or, in angina pectoris, where there may be polyuria and, in some cases, increased salivation.

To take a simple example of a referred pain, if a distending enema of hot water is given per rectum but is retained, the painful peristalsis occurs, pain is felt, in the majority of people, not over the contracting bowel but in the middle line just over the pubis. In operating on a case of fœtal fistula, without any anæsthetic, after resecting the fistulous portion of small intestine and suturing end to end, MacKenzie found that the patient began to complain of intermittent pain and that he unhesitatingly and repeatedly located it at the umbilicus. Looking for the cause of the pain, MacKenzie found that its incidence coincided with the occurrence of intermittent peristaltic contraction of the bowel at the suture line; and yet the sutured piece of bowel was lying in a warm towel at a distance of ten inches from the umbilicus, the spot where the patient insisted the pain was. He corroborated the observation by pinching the bowel and causing peristalsis, whereat the patient, as before, complained of pain at the umbilicus.

In the spinal cord, sensory cells may not only be *stimulated* by visceral disease but may also be rendered *abnormally sensitive*, so that a mere touch applied to the corresponding periphery will cause pain, e. g. in appendicitis, the affected segments are the twelfth thoracic and the first and second lumbar, so that there is increased sensitiveness or hyperalgesia of the sensory nerves ending in the skin and muscles over the right iliac fossa and erector spinæ. Merely to touch this area gives exquisite pain. Motor cells may also be highly sensitized so that the transversalis, the oblique and the psoas muscles, which are already in a state of tonic contraction, may, by the slightest stimulus, be sent into a condition of even greater rigidity.

If the tenderness in the neighborhood of a diseased viscus, say the gall bladder, were due to sensitiveness of the organ itself, the area of tenderness would be equal in size to the size of the organ; as a matter of fact, the area of tenderness may extend widely beyond the viscus on all sides and this may, in the case of the gall-bladder stones, be demonstrated in the rectus muscle, several inches away, by pinching it between finger and thumb in the linea alba. The radiation of pain and tenderness over a much larger area than that occupied by the diseased organ is due to radiation of the stimulus in the spinal cord, so that a large number of cells are affected. The radiation of the incoming stimulation occurs, not across the cord, but up and down, spreading to the segments above and below on the same side and so affecting cells whose peripheral distribution may be at some considerable distance from the offending viscus.

These symptoms of pain and hyperalgesia, together with tonic contraction of corresponding muscles, or any one of these symptoms alone, may, if carefully studied, prove a valuable help in diagnosis. Pain in the external body wall is often treated as neuritis when, in reality, its cause is to be found in some underlying visceral disease.

In Angina Pectoris, the third or fourth thoracic spinal segments are irritated so that pain and hyperalgesia occur in the upper part of the left chest and down the inner side of the left area; the upper intercostal muscles may become contracted, giving the patient the well known feeling of constriction of the chest. In some cases of heart disease, especially in old or arteriosclerotic people, this tonic contraction of the chest muscles with its resulting feeling of constriction may be the only thing complained of by the patient and is regarded as a grave symptom. Hyperalgesia of skin or muscle, or both, may persist for days after an attack of angina pectoris, and, if found and carefully marked out, form a valuable guide post in diagnosis.

In pleurisy, the pain is due to the reflex contracted intercostal muscles, the contraction and subsequent pain increasing with any attempt to use the muscles, as in breathing; but pain in pleurisy and basal pneumonia is often felt, especially in children, in the abdomen below the ribs, over the region supplied by the eighth and ninth thoracic nerves; and, in pleurisy of the diaphragm, pain and tenderness may occur on the top of the shoulder because both the diaphragm and the top of the shoulder are supplied from the same spinal segments, third, fourth and fifth cervical.

In disease of the alimentary canal, MacKenzie says that, if a patient is closely questioned and made to indicate definitely where he feels the pain, he will point, in the great majority of cases, to the middle line; to the lower end of the sternum in œsophageal disease; to the epigastrium in stomach cases; to the umbilical region in disease of the small intestine; to the hypogastric region in cases of large intestinal disturbance, but always at or near the middle line. He has watched cases of painful peristalsis beginning in the epigastrium and travelling straight down the middle line to the pubis until relief was obtained by an action of the bowels.

In "heartburn," which is probably due to the regurgitation of acrid fluid into the œsophagus, pain is felt at the lower end of the sternum, the affected segment being the fifth thoracic.

In gastric ulcer, he found, in many cases, a small area of pain and hyperalgesia in the middle line, located at the upper, middle or lower parts of the epigastrium, according as the ulcer is situated respectively at the cardiac end, the middle, or the pyloric end of the stomach. He speaks from cases which he has verified by operation or autopsy.

The nerve supply to the epigastrium comes from the sixth thoracic and seventh thoracic segments; in stomach disease, the stimulus may spread upward to the fifth and fourth segments, thus encroaching on the spinal area involved in heart disease and so giving rise to the suspicion of angina pectoris. The important point to observe is where the pain begins.

The upper part of the left rectus is supplied by the sixth thoracic and may, in stomach cases, be found to be tightly contracted, in some instances even resembling a tumor.

If we find a tender area in the epigastrium in a case of ulcer it does not mean that the ulcer is directly behind it. A hatpin driven through it would not pierce the ulcer. If the stomach is displaced by taking a deep breath the tender area does not follow it but remains exactly where it was.

In all this discussion, however, it must be remembered that if the *parietal peritoneum* is involved in the inflammation of any viscus, the dragging upon it of adhesions produces a new kind of pain, not a referred pain, but a direct pain, conveyed directly to the spinal cord from the fine network of cerebro-spinal nerves that supplies the extra peritoneal tissues. (Raumstrom.)

In gall stones, the nerve segments affected are the seventh and ninth thoracic, those immediately below those of the stomach, and in severe cases, the stimulus may pass to the stomach segments and pain may be felt in the middle line of the epigastrium and the upper part of the right rectus may become contracted and hard; but, as a rule, pain tends to spread to the right side and be felt most severely over the ninth and tenth ribs. This area may become very tender and a maximum point of tenderness is often found near the ninth costal cartilage. This is not a tender gall bladder. It is the spot where a twig of the ninth thoracic nerve passes out of the rectus muscle (corroborated by dissection.)

Gallstone disease may so sensitize the stomach segments of the cord that such a simple stimulus to the stomach as the ingestion of food, normally painless, may produce great pain.

The thoracic nerve, after supplying the diaphragm, gives afferent twigs to the gall bladder and ducts, so that, as in diaphragmatic pleurisy, pain may be felt at the top of the shoulder, an area supplied by the same spinal segments, the third, fourth and fifth cervical, as give rise to the phenic.

In renal colic, the segments involved are the eleventh thoracic to the second lumbar. If the calculus is in the pelvis of the kidney, pain begins in the back above the crest of the ileum, passing round to the front and slanting down toward the testicle. The corresponding mus-

cles, the lower parts of the obliques and transversalis, become rigid. Further, the cremaster muscle may contract and draw up the testicle; and pain may shoot into the testicle. The genital branch of the genito-crural is the motor nerve to the cremaster muscle, the sensory nerve to the tunica vaginalis testis, and its central stimulation explains these two testicular phenomena.

All the cutaneous and muscular area mentioned and the testicle may become highly tender and yet the scrotum itself is never tender in such cases because its nerve supply comes from sacral segments which are unaffected.

If the pain of renal colic recurs and always starts at the same place in the back, the stone is stationary in the renal pelvis. If the stone has moved, it will be observed that the pain begins more to the front because of the peristalsis of the ureter affects a lower segment of the cord, and finally the genital branch of the genito-crural is stimulated, showing that the first and second lumbar segments have suffered from the descending genital irritation.

Let me finish by saying that the theme of the book seems to be, observe pain accurately and especially make careful note of where it begins.

State Association.

The approach of the 63rd annual meeting leads us to think more seriously of the financial condition of the organization and the work possible for it to do. Under the heading "Correspondence," appears a communication from our treasurer in relation to the finances and we can all agree that some effort should be made this year to adopt a definite policy in the business administrations of the Association.

At the coming meeting the members and their wives are to be the guests of the Ricker Brothers and every effort has been made by the committees on arrangement and program to make this session a pleasant as well as a profitable one to those who attend. It seems needless to say that the members can ill afford to stay away from the annual meetings and the association with their fellow practitioners. It certainly seems strange when prominent physicians and surgeons who are leaders in their respective lines in this country can attend such meetings as these and go away with the feeling that they have learned something, that we cannot all secure some knowledge sufficient to repay us for the loss of time and money. Make it a vacation trip and see how well it works.

JOURNAL OF MAINE MEDICAL ASSOCIATION

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Editorial Comment.

Cocain Snuffs.

We are not sufficiently familiar with all the propositions of the law against toxic drugs under which the nation is now passing, to know whether or not the use of cocain snuff and its derivatives or substitutes are included under the ban of the law. If not, then it is time that this point should be attended to, for snuff containing cocain and its derivatives may be easily sold in the shops supposed to sell only the various forms of tobacco. It is notorious enough, that snuffs containing cocain (and its derivatives or substitutes) in conjunction with menthol are daily utilized by habituees of the cocain habit. Attention to the use of cocain snuff was given some few years ago by the police of Paris but since other laws against cocain have of late been passed, and the cocain snuff apparently overlooked, it may be well worth while for those interested in the workings of the cocain law to call public attention to the question whether or not the snuff comes under the law as at present intended to be carried out. The mere fact that foreign nations are interesting themselves at the present time in the toxic effects of cocain in order to maintain efficiency in their soldiers, should likewise call our attention to a possibly overlooked danger from this toxic drug, and one that is apparently but little suspected. We have also often wondered whether the coca-cola so publicly and so widely drank by the young people of today is not open to the need of a careful chemical analysis of its composition with a view to determining the presence or absence of cocain and its derivatives or substitutes.

Correspondence.

Portland, Me., May 1, 1915.

The Maine Medical Association,

Gentlemen:—When I became treasurer of this association in nineteen hundred and eight, the balance in the treasury was \$3,528.55. On June first next, liabilities will exceed assets, if we exclude from our reckoning money now being received for dues with which we ordinarily expect to defray next year's expenses.

Clearly, there has been no misappropriation of funds by the treasurer himself, for "he shall pay money out of the Treasury only on a written order of the President, countersigned by the Secretary." Moreover, his books have been audited each year by the House of Delegates and found correct "with proper vouchers." How, then, does one account for a potential deficit?

Too thoughtless and imprudent expenditure of funds in an endeavor to carry out the "Purposes of the Association" as set forth in article two of the Constitution.

Some of these "Purposes" are entirely without the sphere of curative medicine which is our business. For example, why should we concern ourselves with the enlightenment and direction of "public opinion in regard to the great problems of State Medicine, so that the profession shall become more.....useful to the public in the prevention of disease." Disease prevention is not our vocation but is the sole concern of the United States Public Health Service and of the up-to-date Board of Health. "Prevention *is* better than cure and far cheaper," to quote Locke, but *we* have been trained in *curative* medicine. Our advice upon problems of prophylaxis is practically worthless; it is presumption to think otherwise. The prescription of a Gorgas in a case of infant feeding would have equal value.

I submit that instruction of the public in the production, handling, transportation of milk is not our business; neither is the dissemination of information relative to venereal disease and the recognition of early cancer our function. As *individuals* we are not engaged in public health activity; why, then, do we collectively assume the obligation of organizations whose only *raison d'être* is disease prevention!

Again, during the past half dozen years, we have repeatedly committed the stupid blunder of opposing the demands of the osteopath at Augusta. At the session of 1911, we devoted \$1,313.00 to this purpose. Within several weeks our Committee on Public Policy and

Legislation has approved a bill of \$750 rendered by certain attorneys at law, for services at the "last two legislatures."

This committee was nominated and elected last year by the House of Delegates and no limit placed upon the sum of money it might expend, for what? For the purpose of "Securing and enforcing legislation in the interest of *public health* and of scientific medicine. For endeavoring to shape legislation so as to secure the best results for the whole people. For striving to organize professional influence so as to promote the general good of the community."

I repeat that ours is not a public health organization, and I suggest somewhat less altruism in the future and much less solicitude for the people. It is they who will and must decide the fate of osteopathy or any other pathy. The law of supply and demand operates just as inexorably with healers of any sort as with merchandise; why, therefore, continue to deplete our exchequer in the attempt to discharge a duty which does not devolve upon us. Why try to shield the people from any form of medical humbuggery. They haven't asked for protection; they don't want it, if I understand their behavior toward all fads; and they don't deserve it from the regular medical profession.

For several years we have maintained a scholarship in the Medical School of Maine, although we can ill afford it.

One must cut his garment according to his cloth. A membership of 700, means dues amounting to \$1,400. The House of Delegates, knowing our source of income, last year made appropriations as follows: Journal, \$1,000; editor, \$200; Secretary, \$200; Treasurer, \$25; Medical School Scholarship, \$100; Committee on Venereal Diseases, \$50; Committee on Cancer, \$50; Committee on Public Health, \$50; Committee on Public Policy and Legislation, amount not specified, but proves to be \$750. About \$1,000 of this amount was devoted to work that was *emphatically not our business*.

Neither is the foregoing list of expenditures complete. It must include the cost of the bond, insurance on library, the president's traveling expenses, bills incurred by censors in the prosecution of their duties, stenographer, buttons, printing, etc.

I respectfully suggest to the Association that in the future we confine ourselves strictly to our own vocation; that we be content with lending *moral* support to such public health measures as meet with our approval; that it is practically useless in a "free" country to deny freedom to practice any cult; and that the treasurer of this association be made, ex-officio, a member of the House of Delegates.

Yours very truly,

E. W. GEHRING, *Treasurer*.

Campaign Against Cancer in New England.

The New England States generally show a higher death rate from cancer than any other group of States. This does not mean that New England people are more susceptible to this disease. Cancer is a disease of later adult life and it is well known that in parts of New England there are more old people proportionately to the population than in many other regions. Nevertheless, the death rates recently published by the U. S. Census Bureau have stimulated much activity in these States in the educational campaign for the control of malignant disease.

What are the facts upon which this movement is based? According to the report of the Census Bureau, in 1913 there were 49,928 deaths from cancer in the registration area of the United States, corresponding to a death rate of 78.9 per 100,000 of the population. All the New England States have individual cancer death rates much higher than this. Connecticut's rate, which was the lowest of any of the New England States, was 85.1. Vermont's rate was the highest with 111.7, while the rates of the other States were correspondingly high, Maine having a rate of 107.5, New Hampshire 104.4, Massachusetts 101.4 and Rhode Island 93.3. When these figures are compared with those of Kentucky, with a rate of 48, they seem indeed very high. They mean that 6,817 people died in 1913 in New England from cancer. But it does not necessarily follow that cancer is more common in New England than elsewhere. The Census Bureau attributes the high cancer death rates in certain districts to the relatively high age distribution of the population and the negligible amount of immigration. Translated into everyday terms this means that in New England the proportion of people over forty years of age, or at the cancer age, to those under forty, and so less liable to cancer, is greater than in other places. Yet there is no doubt that the cancer death rate in New England as well as in other parts of the country is much higher than it ought to be. Without question a large percentage of cancer deaths can be prevented by early recognition of the symptoms and prompt recourse to competent surgical advice and treatment. Cancer is not a hopeless, incurable affection, as so many people wrongly believe. Those who know the facts believe that if the public can be properly educated in regard to the early signs of the disease and will act on this knowledge, the present mortality should be reduced at least half and perhaps two-thirds.

That New England is awake to this opportunity of saving lives is evident from the activity in several States. To protect against taxation without representation the patriots of Massachusetts dumped

overboard the famous cargo of tea. Vermont medical men have become so concerned over the high cancer death rate of their State that they are going to hold a "tea-party" of another sort and attempt to dump overboard the high death rate from malignant disease. While their action is not so dramatic as that of the patriot raiders they hope to prove that through its great ultimate benefit to the community it will be almost as patriotic. The New Hampshire State Board of Health has recently published sound advice in its Bulletin. In Maine an active committee of the State Medical Society is arranging public lectures and causing the publication of instructive articles in the newspapers. Massachusetts has a well organized branch of the American Society for the Control of Cancer with headquarters in Boston. The Vermont State Medical Society has arranged a series of public meetings to spread the bad news of the high cancer death rate and the good news of the hope of controlling the disease by earlier recognition and prompt surgical treatment. Morning, afternoon and evening meetings will be held on Tuesday, Wednesday, Thursday and Friday, June 8th to 11th, at Rutland, Burlington, Montpelier and St. Johnsbury. The Vermont State Board of Health will send its Secretary, Dr. Charles F. Dalton, to address each of these meetings and the American Society for the Control of Cancer will be represented by Dr. Francis Carter Wood, Director of Cancer Research at Columbia University, New York City, and by Dr. J. M. Wainwright, Chairman of the Cancer Committee of the Pennsylvania State Medical Society.

House of Delegates.

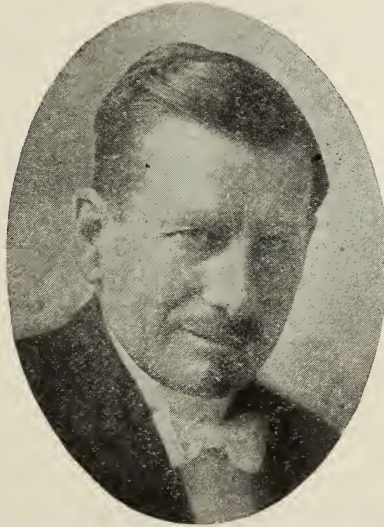
The first session of the House of Delegates will be held at Poland Springs on the evening of June 8th at 8 o'clock. Arrangements will be made to meet the afternoon train and convey the members and their wives to the Poland Spring House, Tuesday afternoon.

It is very important that all members be present as this will probably be the most important meeting of this body, and matters of vital importance to the Association will come up for discussion. We sincerely hope that the county secretaries will notify the members who serve as delegates for their counties and urge upon them the necessity of being present at this first meeting.

Program.

We wish to again call attention to the program in this issue as it shows some changes from the precessional notices. It has been necessary to make some alterations and even farther changes may have to be made during the session. Due notice will be given of such changes in the open meetings of the Association.

Necrology.



CHARLES JEWETT LINCOLN.

This member of our Association, a man with a very remarkable record, died in Augusta on Sunday, March 14th, 1915. He was remarkable in that, in the brief period of a single year, he performed seven successful Cæsarean Sections; the mothers all recovering, and five of the children surviving.

The son of Charles Benjamin and Marinda Jewett Lincoln, Dr. Lincoln was born in Albion, Maine, July 11, 1869, studied in the schools of his native town, subsequently in the Academy at China, Maine, followed out two years of medical instruction at the Medical School of Maine, and obtained his medical degree at the Dartmouth Medical School in 1904. He then settled in Week's Mills, a small village in Kennebec County, and, after obtaining a solid foundation of country practice, he removed to Augusta, where he spent the rest of his life. Gradually working up from general medical practice to a strictly obstetrical specialty he went abroad in 1913, and prosecuted farther the study of obstetrics with Dr. Clifford White, at the London University Lying-in-Hospital, and, later on, at other institutions on the continent. He then returned to Augusta, refreshed in mind and in obstetrical skill, and, as has been before mentioned, he not only performed seven successful Cæsarean Sections inside of a year but had

the great good fortune to perform two of them in a single day, probably a record for this State. So successful a record is something splendid for any surgeon to obtain, yet Dr. Lincoln deserved his high attainment and excellent results.

Dr. Lincoln was appointed to the Staff of the Augusta Hospital in 1904 and owing to his skilful surgery was looking forward to the appointment of obstetrician in chief, when he fell ill from septicæmia and in a few days was gone.

He belonged to the County, State and American Medical Societies, wrote excellent papers "On Eclampsia" and on "Toxæmia of Pregnancy," and was always eager for obstetrical practice, leaving to other physicians the care of ordinary medical cases.

On the 4th of June, 1904, Dr. Lincoln married, in Boston, Miss Adele Marie Letourneau, by whom he is survived and mourned.

J. A. S.

County News.

CUMBERLAND.

PORTLAND MEDICAL CLUB.

The regular monthly meeting of the Portland Medical Club was held at the Columbia hotel on May 5th. A committee to arrange for the annual outing of the club in June was appointed to consist of Drs. Drummond, Robinson and Vanamee.

Dr. Gilbert outlined the plans for entertainment at the meeting of the Maine Medical Association at Poland Springs, and urged promptness in replying to the Committee as to what accommodations would be wanted.

The paper of the evening was given by Dr. Fred P. Webster, and his subject was "Certified Milk." This paper was a most exhaustive study of milk conditions normally as compared with conditions when there had been provision made for certifying the milk. Examples of other cities were cited, and the problem that confronts Portland was gone into. The exact duties and personnel of an adequate milk commission were discussed, and the advantages to be gained by its institution pointed out.

Free and interesting discussion was evoked by the paper, not only among the doctors, but also from one of the city milk producers who was present as a guest of the club.

In closing the discussion, Dr. Webster reaffirmed his belief that he considered pasteurized milk the only safe milk, and yet was strongly in favor of a betterment of conditions here in Portland.

HAROLD J. EVERETT,
Secretary Pro-tempore.

PENOBSCOT.

The regular monthly meeting of the Penobscot County Medical Association was held at the Bangor House, Tuesday evening, May 18, 1915. Dr. Elliott P. Joslyn of Boston, read a paper on the present treatment of diabetes mellitus, illustrated with stereopticon views. There was a business meeting at 7.30 followed by supper at 8.

HARRIS J. MILLIKEN, *Secretary.*

Abstracts from Current Literature.

(Woman's Medical Journal, March, 1915.)

Ovarian Secretion. A few Observations from a Practical Point of View.

By Wm. Seaman Bainbridge, N. Y.

He reviews the work done, as well as the interdependence of the various organs producing internal secretion on one another. Animal experimentation has not wholly cleared the field.

"Not only does this science embrace the study of the internal secretions of the various glands and organs, but it involves also a study of the correlation of the functions of these organs with others and with the body as a whole, and the utilization of the healthy glands or their secretions in the treatment of diseases, special and general. It likewise involves the surgical removal of the diseased gland in full or in part, and the autoplasmic or heteroplasmic transplantation of these organs or parts thereof in the effort to preserve their function or to offset the interference therewith by disease."

Clinics have been established for systematic study of these questions and it is to be hoped that some few of the more complex problems, such as cancer and metabolic disturbances will be enlightened.

In discussing the question of intestinal secretion of the ovaries he quotes Sajous as follows: "Removal of the ovaries prevents the normal development of the uterus and the appearance of menstruation while their removal after puberty arrests menstruation and is followed by atrophy of the remaining structures." He holds that the ovaries belong to that class of glands which have, in his opinion, an autonomous internal secretion, acting upon organs of their own order.

"As far as available evidence permits us to judge," he says elsewhere, "the ovary produces a secretion which sustains metabolism and nutrition of the *sexual apparatus* of which the ovaries, the secreting organs, themselves form part, and also the menstrual function." During the interval he holds, "the unused excess is absorbed into the

general circulation not as a special secretion or hormone, but as a part of the general asset in adrenal and thyroid secretions, nucleins, etc., with which the functions of the general organisms are usually carried on. When the ovaries are removed, or when menopause occurs, the organism is deprived of two structures which contribute to the general welfare certain substances, among which the adrenal-like principle and possible nucleins may perhaps with some degree of certainty be mentioned."

In conclusion, he points out that double oophorectomy is a serious procedure, to be done only in malignant conditions and in all operative proceedings should contemplate the removal of the least necessary amount.

FRANK Y. GILBERT.

"A Surgeon in Belgium."

In a review of a very recent surgical work, "A Surgeon in Belgium," by H. S. Stoutar, F. R. C. S., the British Medical Journal excerpts the very remarkable fact, that in spite of attending thousands of wounded men such as would be treated in a hospital of 150 beds during the past six months of the war in Belgium, this surgeon has never once had occasion to amputate a limb. As the writer points out, the surgeons, 50 in number, were dealing with healthy and vigorous men who, once recovered from the shock, exhibited wonderful powers of recovery. Speaking of the dum-dum bullet and denying their uses by the allies, Dr. Stoutar asserts that the bullets used by the Germans are even worse in their effect on human tissues than the dum-dums because it is short, and pointed, and when it goes in it turns completely over and produces equally deadly results with the genuine dum-dum against which the world has protested repeatedly. Severe wounds were lightly covered and exposed thus to the widest sweep of the open air, the soldiers being otherwise carefully protected from cold. Owing to this experiment, not a single case of tetanus was observed. No heavy dressings were used in any case of injury. Fractured thighs, the worst cases to deal with, were dressed, and then steel-plated for position and gradual recovery. The author denounces the removal of bullets unless they cause pain by interfering with a joint or nerve.

It is interesting to know that Mme. Curie was present in this hospital and made many radiograms. The great difficulty with the surgeons of the French and Belgians lies in the fact that they do not like to operate unless they have a complete standing hospital; any sort of a substitute seems to react upon their ideas of proper surgery. In conclusion the author insists from personal investigation that the German atrocities were frequent, deliberate and organized.

J. A. SPALDING.

(Medical Record, April 17, 1915.)

Gonorrhea Treated with Succinimide of Mercury Administered Intramuscularly.

By Geo. B. Lake, M. D., Captain Medical Corps, U. S. A.

This is a preliminary report by the author, of twenty cases of gonorrhea treated by himself with succinimide of mercury. At first he administered forty mgm. but found that this was too small in some cases. At present he is using sixty-five mgm. as an initial dose in every case. There were no bad effects from its use, some local reaction and, in some, a mild stomatitis. In some cases a second injection was given in four days. The results were as follows: "Sixty-five per cent were cured in an average time of less than one week; fifteen per cent probably cured and reinfected; ten per cent lost for purposes of record and only ten per cent showing unsatisfactory results.

Most of these cases had local treatment also, and the author thinks this best at the present time.

E. B. FOLSOM.

(Medical Record, April 17, 1915.)

The Use of Decanted Blood Serum after severe Hemorrhage and in Hemophilia.

By Aspinwall Judd, M. D., N. Y.

In this paper, the author reports two cases in which it was impossible to use the more scientific and elaborate methods generally employed in other cases of a similar character. The author's method is simple and harmless and available to the general practitioner.

The blood is drawn from a healthy parent into a sterilized glass vessel. This is kept at the temperature of blood for half an hour, then placed on ice until the blood separates from the clot. The serum is then decanted and kept in a cool place until needed. This is injected into the subcutaneous tissues, the amount depending upon the case. The author advises the use of salt solution also but says that, in children, it is not required.

The first case was a baby, fourteen months old, with fracture of skull and rupture of middle meningeal artery, with severe hemorrhage. The child, when seen, was operated upon and the artery ligated, at the conclusion of which she was pretty well exsanguinated, the hemoglobin about 40% and almost no blood pressure.

The second case was one of hemophilia in a young man, nineteen years old.

Both made good recoveries and, in the case of the young man, he has had no recurrence of any tendency toward hemophilia for over three years.

E. B. FOLSOM.

(Journal A. M. A., March 20, 1915.)

Etiology of Cancer in the Light of recent Cancer Research.

By Harvey R. Gaylord, M. D., Director, State Institute for the Study of Malignant Disease, Buffalo, N. Y.

Through the discoveries of filterable viruses causing different types of sarcoma in chickens, we may assume that the parasitic hypothesis is at least justified. The question which will most concern us in the future is whether only a few neoplasms are caused by living organisms or whether living organisms are responsible for a large part of that group of tissue growths which we call malignant. It is now generally recognized that there are well-defined agencies which work, at least locally, in a predisposing manner. They are the mechanical, physical, chemical, infectious-inflammatory and other agents, causing chronic irritation. Besides the local predisposing conditions, it is now known that there are predisposing factors of a more constitutional nature, as shown by the susceptibility of mice to cancer.

The existence of a limited immunity to transplanted cancer was established by Clowes and myself, as mice which were inoculated with cancer of the breast sometimes recovered and for a long time after, they could not be successfully inoculated with the same tumor.

That the blood in cancer cases contains antibodies or antiferments opposed to the cancer cell is clearly shown by the presence in such cases of reactions such as the deviation of complement reaction and the more recent Abderhalden reaction.

The whole picture of cancer from a clinical point of view must now be viewed in the light of the facts pertaining to immunity, and we may also begin to consider the existence of viruses or infectious agents as the cause of this disease.

The cancer problem will never be taken by assault as Ehrlich once stated, but it will be broken up into a great field which will require many years of patient and extensive work of many investigators.

R. F. CHASE.

(Amer. Journal of Obstetrics and Diseases of Women and Children, Mar., 1915.)

The Relation of Gynecological Surgery to Bad Obstetrics.

By Edward Reynolds, M. D., Boston.

The amount of ill health caused by obstetrics is large, and most of it preventable and unnecessary. The exhaustion caused by comparatively unrelieved labor, the minor septic infections and mechanical injuries contribute much to the size of the gynecologist's practice. Careful observation during pregnancy could obviate many later diseases. Many chronic conditions which come later to the care of the surgeon are now recognized as having had their origin in a mild

infection at the time of parturition. The so-called latent "marital gonorrhœa" is only of exceptional occurrence. Absolute freedom from every trace of infection could be assured only to the patient who is delivered in a room as carefully prepared as one for abdominal operation. This is manifestly impossible for every case now. The public must be led from the idea that infection is the fault of the obstetrician, so that the latter will treat immediately any minor infection, thus saving more serious consequences in later years. Every woman in the early forties should be looked over and any abnormality in the genital organs should be then corrected, so as to save trouble later in life.

Displacements, with their consequences, can be made much more unlikely by keeping the patient in bed for a longer time. Early rising has rightly fallen into ill-repute.

Displacements which have once been acquired are rarely permanently relieved without operation except by active treatment of them immediately following a subsequent pregnancy. H. J. EVERETT.

Lead Poisoning from the Use of Cosmetics. Two Cases of the Neuromuscular Type.

G. Wilse Robinson, Kansas City, Mo. Journal A. M. A., Mar., '61.

Among those most liable to lead poisoning in the United States are workers who rub newly painted bodies of railway coaches, carriages and automobiles with sandpaper; laborers in white lead factories and the makers of storage batteries or electrical accumulators.

Lead may enter the body in three channels: skin, respiratory passages, and alimentary canal. The nervous system is especially susceptible. The most common type is peripheral nerve palsy. The most typical form of this is extensor paralysis of the arms with wrist drop. Other types of peripheral paralysis sometimes occur, such as the scapula-humeral and peroneal forms. A forerunner of the paralysis is often numbness in the extremities, or colic.

The most dangerous form of lead poisoning is the cerebral type or lead encephalopathy, in which epileptiform convulsions may be the most prominent symptom often followed by early death.

The chief object of the paper is to warn against the use of certain cosmetics, particularly "Lead Flake."

Two cases of lead poisoning are reported in women who had used "Lead Flake." Both of these showed peripheral palsies. One patient recovered in a few months after the cosmetic was discontinued. The other showed marked improvement. In one of these cases the Wassermann test was positive. This, the writer says, is not uncommon in lead intoxication.

H. M. SWIFT.

William Hunter as Obstetrician.

Those who are interested in the history of the development of the science of obstetrics will gladly turn to a very valuable Hunterian oration delivered by Mr. Henry Russell Andrews of London, February 10, 1915, and printed in full in the British Medical Journal for February 13th. Those who have long thought that there was but one Hunter, and that his name was John, will be surprised to learn, in this paper, of the high position occupied by John's brother, William, and his great skill as an obstetrician. Amongst other curiosities, mention may be made that William Hunter was the first man obstetrician who ever attended any Queen, in labor, all others before him having been attended to by mid-wives. William and John worked together mutually for some years but finally quarrelled over the question of priority, concerning some anatomical discovery. Later on, they were united and John attended his brother in his last illness. William spent half a million dollars in collecting a museum of books, pictures, etchings, paintings and curiosities in art. His immortal work, as it has been called, "The Anatomy of the Human Gravid Uterus," exhibited in figures, was begun in 1750, and only published in 1774, with handsome plates and descriptions in Latin and English side by side. The plates were drawn from nature and colored on the spot, nothing being left to the imagination of the colorist. "It remains one of the staple foundations of the science and art of mid-wifery" was said concerning it but a few years ago by an eminent medical historian.

The oration here printed goes into many minutiae of William Hunter's aphorisms on obstetrics, and is well worth keeping in mind for careful reading, giving as it does a most valuable picture of obstetrical conditions and advancements during Hunter's life and as suggested by him. Finally, the GREATNESS of two brothers in medicine side by side is worth emphasizing as one of the rarities in our observations of the history of this art of health, in which we are interested from every point of view.

J. A. SPALDING.

(The Ophthalmoscope, March, 1915.)

The Ocular Manifestations of Infantile Scurvy with Reports of Case.

By Sydney Stephenson.

Symptoms:—Protrusion of the eye ball, hemorrhage of lids, subconjunctival hæmorrhage, retinal hæmorrhage and blood in the anterior chamber.

These may precede the ordinary symptoms but generally follow, appearing on the 7th or 8th day.

Pathology of the proptosis being an effusion of blood between the periorbita and the bone.

This condition clears up upon suitable treatment, namely dietetic.

A. W. HASKELL.

Bullet Wound of Occipital Lobe, Loss of Sight Recovery.

The British Medical Journal for February 13, 1915, contains full details of an instructive case of this sort, and is worth mentioning not only because it was successfully treated at the Anglo American hospital at Wimereux in France, but because it throws light on the value of the localization of the innervation of the visual fields.

This soldier was wounded by a bullet at 150 yards, and on regaining consciousness on the following day was so blind as only to discern light and darkness. He was also found to be deaf in the right ear. Pulse 60, Temp. 98.6. A small wound of entrance could be seen to the left of the external occipital protuberance, with an exit on the right of the same protuberance. Radiograms showed fracture of the skull with depressed fragments lying on and in the brain. Two horse-shoe flaps, including entrance and exit wounds were laid down, and irregular pieces of bone removed. Hot saline in a steady stream was directed on the exposed area.

The flaps were sutured but well drained. On recovering from the effect of the anaesthesia, the patient volunteered the statement that he could distinguish between nurses and orderlies by their uniforms. The hearing also steadily improved. For three days, temperature rose to as high as 100 degrees, but the pulse once dropped to 56. The wound healed readily by first intention. Daily ophthalmoscopic examination failed to reveal any optic neuritis. Headache continued for a few days but gradually ceased. The field of vision which after regaining consciousness had been much contracted, steadily widened and twenty three days after the operation it was normal with exception of a slight scotoma, and vision now enabled him to read letters from his friends. The case is valuable because, in pathological conditions, of the occipital lobes, we find, on post mortem examinations, areas of softening, or hemorrhages previous to softening, which have been preceded with loss of vision and loss also of the visual fields, generally more to one side than the other, whilst, in the present case, it seems to have been concentrically contracted on both sides.

J. A. SPALDING.

(Woman's Medical Journal, March, 1915.)

Hints on Gynecological Practice in Thyroid Deficiency and Thyroid Medication.

By Eugene Hertoghe, M. D., Antwerp, Belgium.

He states as follows: "When a cell has done its normal work for some time it decays, and the proteid molecule must be taken to

pieces. It must be split into minor principals, and then eliminated through various channels — lungs, bowels, and especially through the kidneys — in the form of urea. If the thyroid is deficient, these minor principals are not carried away as quickly as they ought to be. Under the form of fat and mucin they remain, swell up the cells, and form on the spot an accumulation and edema of a specific kind called 'Myxedema.'

While a few doses of thyroid extract will result in elimination of accumulated waste matter of the cells with loss of weight, the urea output is very heavy. When this process is complete, the loss of weight ceases, the urea comes down to normal and no amount of thyroid can produce further change. He discusses the infiltration in myxedema.

He takes up the following various systems: — nerves, gastric, intestine, vascular, etc., showing how this condition would account for many symptoms not easily explained.

Treatment: — "One should always, before starting, take careful notice of bodily weight. Loss of weight under treatment means here the carrying away of residual cellular waste matter and settles the diagnosis. A daily dose of five grains of thyroid extract — i. e., one tabloid, will do in most cases. Constipation must be dealt with as necessary. Cold baths, alcoholic drinks, sugar and meat in great quantities must be avoided.

Medication should be carefully followed by medical attention and at times interrupted in mild cases. Be it sufficient to say that severe cases of thyroid defect are very well kept cured by a small daily dose — say five grains. In milder cases this may, of course, be reduced.

FRANK Y. GILBERT.

LEUCOCYTE EXTRACT, SQUIBB

Prepared from healthy leucocytes according to Hiss. Indicated in general acute systemic infections where bacteriological diagnosis is uncertain. Also used in conjunction with the specific serums and vaccines in the treatment of Erysipelas, Meningitis, Lobar Pneumonia, Septicemia, Pyemia and Furunculosis.

No contra-indications are known. For clinical reports address:

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NEW YORK

Maine Medical Association

Program of the Poland Springs Session, at the Poland Spring House,

Wednesday and Thursday, June 9 and 10

Tuesday

JUNE 8.

HOUSE OF DELEGATES.—Will meet at 8 p. m., at the Poland Spring House, on Tuesday, June 8th, and at other times as may be necessary, subject to call of the President.

THE COUNCIL.—Will meet at the close of meetings of the House of Delegates and at such other time as may be necessary.

Wednesday

JUNE 9, 9.00 A. M.

Call to order by the President.

H. L. Bartlett, Norway.

Invocation.

Rev. A. J. Torsleff, Bangor.

Address of Welcome.

J. W. Scannell, Lewiston.
President of Androscoggin Co. Med. Soc.

Introduction of Visiting Delegates.

The Modern Physician's Long Arm in Preventive Medicine.

Rev. A. J. Torsleff, Bangor.

Abstract. In the olden time, the doctor must prescribe for the patient and then leave the care in the hands of the family or kindly disposed neighbors with the training of crude experience only. Thus was developed the so-called "experience nurse." With the establishing of hospitals, where young ladies could secure training for nurse's work, the so-called "trained nurse" was developed. Finally in the physicians efforts to follow up cases outside of institutions, the so-called "district nurse" was developed.

Her field of work as an aid to the medical profession and to humanity.

Discussion opened by Dr. W. C. Peters, Bangor and Dr. F. J. Welch, Portland.

Cancer of Breast.

W. E. Gray, Milltown, N. B.

Discussion opened by Dr. D. B. Cragin, Waterville, and Dr. R. W. Wakefield, Bar Harbor.

Subject not announced.

B. F. Bradbury, Norway.

AFTERNOON SESSION, 2.00 P. M.

President's Address.

H. L. Bartlett, Norway.

Treatment of Trifacial Neuralgia by Hypodermic Injections of Alcohol.

W. D. Williamson, Portland.

Abstract. Trigeminal neuralgia and its synonyms are used to designate a painful affection of one or more branches of the fifth cranial nerve.

Schlosser, an ophthalmologist of Munich, discovered that 70 or 80% alcohol injected into the nerve afforded relief in the majority of cases, the injection being made into the nerve where it comes through the base of the skull.

Modification of Schlosser's technique is now and has been for several years used by many physicians throughout this country with considerable success. Recently, some eminent physicians, advocating this treatment, recommended injecting directly into the gasserian ganglion through the foramen ovale.

Report of Case of Intestinal Stasis.

Estes Nichols, Hebron

ANNUAL ORATION.

Internal Secretion from the Clinical Aspect, Illustrated.

W. Seaman Bainbridge, New York.

Abstract. The history of the development of organotherapy and of the theories concerning the functions of the internal secretion briefly reviewed. Clinical observations, reinforced by laboratory experiments, have placed the subject of endocrinology upon a scientific basis, and have given a new point of view regarding many conditions hitherto obscure and neglected. Extensive observations upon animals, as well as clinical observations upon human beings, have established the importance and the intimate relationship of the different endocrinous organs, not only in the mental and physical development of the individual, but in the maintenance of function and health of the body as a whole. Clinical illustrations presented of perversion of development and function definitely or tentatively traceable to hypo- or hyper-activity of one or more of the endocrinous organs, with especial reference to hypo- and hyper-thyroidism.

RECEPTION AND ANNUAL BANQUET.

Will be held at Poland Spring House at 7.30 P. M.

Toastmaster, J. F. Thompson, Portland.

Thursday

JUNE 10, 9.00 A. M.

Intestinal Toxemia.

H. H. Roberts, Poland Springs.
 Discussion opened by Dr. W. L. Cousins,
 Portland and Dr. E. S. Cummings, Lewiston.

Intestinal Stasis.

E. D. O'Neill, Biddeford.
 Discussion opened by Dr. D. A. Robinson,
 Bangor, and Dr. S. E. Webber, Calais.

Chronic Gastric and Duodenal Ulcer.

W. H. Bradford, Portland.
Abstract. The stomach too often held responsible for chronic dyspeptic symptoms. Diseases causing such symptoms. Essentials of diagnosis. Differential diagnosis may be impossible, is usually easy. Location of ulcer surrounding induration and scar tissue, contraction of pylorus and food retention. Acute and chronic perforation. Hypersecretion, hyperacidity, pain, haemorrhage. Laboratory examination of stomach contents. Use of stomach tube. X-Ray as aid in diagnosis. Course of disease. Healing difficult. Medical treatment before resorting to surgery. Dangers from complications greater than from operation. Surgical treatment.

Discussion opened by Dr. R. F. Chase,
 Portland, and Dr. H. E. Milliken, Portland.

AFTERNOON SESSION, 2.00 P. M.**Nervous Diseases and Their Relation to the Eye.**

Prof. E. W. Taylor, Boston Mass.
 Discussion opened by Dr. H. M. Swift,
 Portland, and Dr. H. T. Clough, Bangor.

The Senile Heart.

H. R. Farris, Oxford.
Abstract. General consideration of the effects of the passage of years. How the heart is affected by age. The symptoms and signs of the senile heart. Its concomitants and sequelae. Therapeutics.

Discussion opened by Dr. Addison S. Thayer, Portland and Dr. D. M. Stewart, So. Paris.

Blood Pressure and Some of its Clinical Values.

C. H. Witherell, Oakland.
 Discussion opened by Dr. B. L. Bryant,
 Bangor, and Dr. R. H. Marsh, Guilford.

Report of Committee on Necrology.

J. A. Spalding, Portland.

Report of House of Delegates.**Report of Council.****Election of President.**

Due notice of the meeting of the Eye and Ear Section will be given at the beginning of the general session.

NOTICES.

The members of the Maine Medical Association and their wives are to be the guests of the Ricker Brothers at the Poland Spring House for the two days' Session to be held June 9th and 10th. Automobiles will meet the trains as they come in and convey the guests to the hotel, where they will be allotted accommodations. It is extremely important that you should notify the chairman or some member of the committee, on or before the first of June, if you are planning to attend this session, as on that date the committee will meet with the agent in charge of the rooms to allot accommodations. Notify your committee of the day of arrival, also whether by forenoon or afternoon train, so that necessary accommodations for handling all arrivals can be made. The Ricker Brothers have very generously allowed the members of the House of Delegates and any others, desiring to arrive on the afternoon before the session, to do so, in order to be present at the opening of the morning session.

Do not write the Ricker Brothers or Poland Spring House for accommodations, but be sure to communicate with the following committee:—

Dr. J. W. Scannell, Lewiston, Chairman.

Dr. W. E. Webber, Lewiston.

Dr. H. E. Stevens, Lewiston.

Dr. Wm. Ness, Lewiston.

New and Non-Official Remedies.

During April, the following article has been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Non-official Remedies:

Knoll and Co.:

Euresol pro Capillis.

THE JOURNAL

OF THE

Maine Medical Association.

Published under direction of the Council of the Maine Medical Association

All papers, case reports, etc., should be type-written when possible.

Proof-sheets will be sent to the author when requested.

Communicate with the printer early regarding reprints, as the best rates can be had during time that the paper is on the press for the Journal.

The Journal assumes no responsibility for opinions expressed by the authors.

VOL. V.

JULY, 1915.

No. 12

*ANNUAL ADDRESS OF PRESIDENT.

By H. L. BARTLETT, M. D., NORWAY, ME.

Gentlemen of the Maine Medical Association —

It seems at this time that it is both proper and expedient to discuss, in a brief way, some of the responsibilities of modern medicine and the medical profession, as related to social problems. We, as physicians, are coming in contact with these problems every day, and I fear that the profession, as a whole, is not grasping its opportunities or appreciating its position, as it should.

During the last fifty years, medicine has advanced by leaps and bounds, and the task of keeping abreast of this knowledge, has only been done by studious effort on the part of medical men. The mass of the people can't keep the pace, and, therefore absolutely fail to understand the efforts put forth by the profession in their behalf.

While it would seem that popular ideas and scientific medicine are farther apart today than at any time in the past, yet this only makes our responsibilities the greater. Look at the situation as it is today. Medical men better educated than ever before, capable of accomplishing more good, desirous and anxious for the betterment of the people, yet practically wholly unappreciated by the people, who, themselves, are supposed to be more enlightened and intelligent than previous generations.

The people are practically unaware of the benefits that accrue to them through the rapid advance of modern medicine, and "through their indifference and at times open opposition" are hindering and delaying

*Read before the 62nd session of the Maine Medical Association at Poland Springs, June 10, 1915.

the work of prolonging human life and lessening the ravages of disease.

This condition has long been recognized, and to find the underlying causes and remove the same is one of the social problems worthy of untiring and united effort.

The social responsibility of the medical profession is vastly different from what it was four or five generations ago. Previous to the use of the microscope, in the study of disease, medical men knew nothing or very little concerning epidemic diseases. They knew naught of their origin, causation or prevention, because these factors were not perceptible to the naked eye. About the middle of the last century Pasteur showed the microscopic cause of disease. His great humanitarian work led him to make this assertion: "It is possible for civilized man to cause all contagious diseases to disappear from the face of the earth."

Now, while these things are familiar to the medical profession, to the laity they are about as difficult of comprehension as the Greek Testament. They do not understand them or appreciate them. It is, therefore, the duty of the State to protect its citizens from diseases and dangers of which they know so little. As self-preservation is one of the first laws of nature, man will avoid dangerous diseases that he knows as such, but he should be taught to avoid those diseases due to micro-organisms that he can't see with the naked eye, and can only be demonstrated by scientific men working with instruments of precision. Society should fully realize that it is its duty to guard the individual citizen against danger when he is wholly incompetent to care for himself. Prevention of disease and the lengthening of the span of human life can only be accomplished by proper education of the people.

About sixty years ago dates the first effort of the State to do anything along the line of disease prevention. I believe the first State Board of Health was established by Massachusetts in 1869, followed by California in 1870, since which time the other States have organized health departments with varying powers and duties, until now every state has some public health organization. The guiding hand in all this work has been the profession of which we are proud to be a part—work unselfish and practically thankless. The object and duty of these Health Organizations has been to prevent unnecessary sickness, to reduce the death rate and prolong human life.

The work of convincing the people that all the sanitary laws and statutes enacted in their behalf during the years since 1869 when Massachusetts took the first step in that direction, have been for their betterment, has been an arduous and serious task.

What are some of the reasons why this work has been so difficult? Why have so many laws placed on the statute books failed to work as expected? Have we, as a profession, at all times been blameless? Have we gone about this work in a way best calculated to gain the confidence of the people? Have we not at times been content to let the man of real scientific attainments and the extremist go ahead with these things? Men of this type are ideal men to have in the ranks, but they are most always poor leaders for they usually fail to gauge popular opinion correctly.

The man who can figure out to a nicety the amount of waste in unnecessary sickness and preventable death, is prone to be impatient with the layman who is unable to grasp his conclusions, or does so but slowly. He, knowing the inherent weakness of the average citizen to be a belief in the power of legislative enactment, comes to the conclusion that any means by which his opinions and views can be made into statute law are justifiable—that the end justifies the means.

Now, no law ever worked satisfactorily (and sanitary laws are no exception) unless supported by public opinion. As long ago as 1877, one of the leading men in the profession at that time, in a paper on "State Medicine and State Medical Societies," read at a meeting of the American Medical Association in Chicago, said this:

"It requires no great wisdom to enact laws, but great wisdom to enact, on many subjects, laws which can be enforced. The history of legislation is gluttled with the enactment of laws which not only failed to accomplish the object intended, but which did accomplish a very different one, often bringing the object sought for into public contempt. Rarely do writers on State medicine realize the truth of the lessons taught by students of the philosophy of law making, that there is a class of subjects in regard to which laws can be enacted in advance of public opinion without fear of bad results, but that there is another class of subjects in regard to which no laws can successfully precede their public sanction, and, if enacted, violation and contempt for them will ensue. Unfortunately to this class belong such subjects as the regulation of the practice of medicine, compulsory vaccination, registration of vital statistics, etc., and their satisfactory disposal cannot be hoped for until an enlightened and organized medical profession exercises its influence on public opinion."

Nevertheless, in the face of this warning, and our own knowledge of the working of many sanitary laws, are we not still making the same mistake? No law is a force unto itself; public opinion makes the force, and the statute law is only a guide. Laws not supported by public opinion are only a farce and ineffective.

As I have said before, vast changes have taken place since the

days of Pasteur in our relation with public questions. During the first half of the last century, the medical man knew of only one duty, that to his immediate patient. Now, in addition to this, he ascertains the source of the malady, if possible, guards the other members of the family from the contagion and endeavors to keep the community free from the spreading of the disease. The true physician of today does not depend upon the State Board of Health or the Health Officer of his town to do all this, but is himself watchful and alert, ever guarding the health of the community (a sanitary policeman so to speak) against the ravages of disease, and he does this most of the time "without hope of fee or reward."

Now, while we have been and are still doing this unselfish work, have we not at times been too dictatorial, held it to be our own function, special and distinctive, to protect the people with or without their consent? The average man resents being regulated, unless it can be proven to him that such regulation will be for his benefit. The judgment of the medical profession is no more infallible than that of other professional classes. We ought not to expect our opinions to be accepted only so far as we are able to substantiate them. Medical men, as a class, are as much opposed to being dictated to as any other body of men. The feeling against dictation and paternalism is almost universal, and we as medical men are no exception.

Our relation to society should be that of teacher. The facts and findings of the men who are the leaders in thought, eminent in the profession, so far as these findings and facts relate to social problems and public health, should be taught the people in a way which they can understand. It is worse than useless to place laws on the statute books by the so-called "political methods" or "personal influence"—laws that are not understood and against public sentiment.

Now then, what methods and by what means can the desired object—the education of the people along health lines—be brought about?

The various committees of this Association which have to do with this educational work; the committee of Public Policy and Legislation; the Committee on Venereal Diseases and their Prevention; the Cancer Committee; the Committee on Public Health among Women; the Committee on Health and Public Instruction have begun the work in the right direction. Publication of articles relating to social problems and public health, in the various newspapers of the state, the issuing of pamphlets relating to the same, and distributing them among our schools and colleges, among women's clubs and organizations of business men, and various other bodies by which large numbers of people can be reached.

In doing work of this kind there is one pitfall we must escape—

that of making this work appear as wholly a medical movement. If we go about these matters in a monopolizing manner, we shall be accused of selfishness and our efforts will react against the very things we are trying to accomplish.

To the Maine Medical Association belongs the responsibility of utilizing our knowledge to guide the people in a way productive of the best results. Political methods, dictatorial power or personal influence will not do it, but as an organization let us avail ourselves of each opportunity to place the truth before the people by every useful method. Let us follow the injunction of Moses: "I will bring the blind by a way they knew not. I will lead them in paths they have not known. I will make darkness, light before them, and crooked things straight. These things will I do unto them and not forsake them."

***HEART-BLOCK, OR STOKES-ADAMS DISEASE, WITH ACCOUNT OF A CASE.**

BY I. B. GAGE, M. D., ATLANTIC, ME.

As defined by Babcock, Stokes-Adams disease is a symptom complex consisting of bradycardia, vertigo or syncope, and epileptiform convulsions, and all these symptoms have been well marked in the case of a man who has been under my observation since 1906.

Heart-Block includes all cases where there is interference with the conduction of stimulation for contraction from the auricle to ventricle through the Bundle of His, or other path.

The Bundle of His is a system of fibres beginning at anterior edge of the coronary vein and passing along the right side of the inter-auricular septum below the foramen ovale to the auriculo-ventricular septum. Just above the insertion of the median leaf of the tricuspid valve, before it joins the connective tissue of septum, it forms a knot-like mass of muscle fibres. Thence a band penetrates the fibrous portion of the septum and below the membranous part of the interven-tricular septum divides into two main branches which pass obliquely downward, one on each side, beneath the endocardium. These branches eventually reach the lower third of the ventricles and penetrate papil-

*Read before Hancock County Medical Society, May, 1915.

lary muscles. Some fibres pass to the parietal wall of ventricle where they fuse with the common cardiac muscle fibres. The right trunk is fairly narrow. The left quickly spreads out fanlike, and divides into two broad, thin branches each passing to papillary muscle.

Erlanger, by use of a clamp by which he could compress or crush the Bundle of His, found that compression caused slowing of ventricular contractions. Slight compression caused partial heart-block and two to four auricular systoles were necessary to stimulate ventricular contraction. Greater compression cut off ventricular action still further. Tightening of clamp caused complete heart-block and ventricles ceased to contract.

Within the last year, Kent, in the British Medical Journal (July 18, 1914) has described the isolation of a new bundle of fibres connecting auricle with ventricle, other than the Bundle of His. This will necessarily make serious changes in ideas of the co-ordination mechanism of auricle and ventricle. Experiments by Kent have shown that impulses are carried from auricle to ventricle and excite ventricular beats even when the two chambers of the heart are entirely separated except for this bundle at the right side of the heart. Previously we believed that impulses were carried only by the Bundle of His. The cases which have, so far, come to autopsy, show disease, either of the fibres of this Bundle of His, or of adjacent tissues sufficient to interfere with conduction of stimuli from auricle to ventricle. Also gum-mata involving the conducting fibres have been found, showing syphilis an important etiological factor.

Symptoms—The most noticeable is usually,

1. Bradycardia; the case I studied having a regular radial pulse rate of 26 when patient was feeling all right and not disturbed by other symptoms, though at times it has been as low as 14 beats to the minute and rarely up to 32 or 34 beats. In connection with bradycardia must be noted, the occurrence of two or more pulsations in the internal jugular veins just above the clavicles. These pulsations have been shown to be auricular, and are noted in the intervals between ventricular systoles. During his worst attacks my patient showed 3 to 5 of these jugular pulsations between beats of radial pulse. I believe the number of pulsations varies with the degree of heart-block.

2. Vertigo was in this case usually a warning or aura to the patient and was quickly followed by syncope, or complete unconsciousness, though it sometimes passed off with nothing more than severe dizziness. The patient could always tell me when he had fainted. In the March number of the Edinburgh Medical Journal two cases of Stokes-Adams disease were mentioned by Bramwell where the stage of unconsciousness was remarkably long, more than half an hour.

3. Epileptiform convulsions usually occurred in this case at the beginning of syncope and consisted of twitching of mouth and extremities and patient sometimes made very violent motions with his arms. There was no biting of tongue nor involuntary micturition nor defecation.

4. Disorders of respiration are said to consist mainly of Cheyne-Stokes breathing. I never noticed it in patient under observation.

This chain of symptoms may take place at long or short intervals. In this particular case, at first, intervals were short, hours and minutes, but later extended over two or three months. The disease may develop at any age but is mainly seen in elderly men.

The diagnosis is made from the bradycardia, vertigo or syncope, epileptiform convulsions, and often an accompanying cardiac lesion, and visible pulsations of internal jugular veins without corresponding apex beats or arterial pulsations, though synchronous with distant, feeble heart sounds. For every systole of the ventricle there are two or more auricular contractions.

To distinguish from epilepsy; there is no epileptic cry; there is no biting of tongue, nor frothing at mouth, nor involuntary evacuation of bladder or rectum. The pulse and cardio-vascular signs differ from epilepsy.

Functional heart changes can be differentiated by auscultation but extra systoles can be exactly noted only by measurements of venous and arterial tracings as was done in this case in the laboratory of the medical school.

The prognosis is grave. Heart-block may become complete at any moment. Recovery is improbable, though cases of recovery have been reported. In this case the patient has enjoyed life, most of the time, though passing through many periods far from enjoyable, and the knowledge of his condition has been as good as life insurance, making him careful in his exertions and mode of life.

Treatment.—There is no way to remove the cause except in syphilitic cases. Usual treatment is mostly symptomatic and unavailing. Attend to general health between attacks and prevent indigestion and constipation. Have patient avoid exertion and excitement. Digitalis is dangerous.

Case.—Mr. L. K. G., 70 years old in 1910. His father had trouble with his heart, and his brother died of angina pectoris at age of 73. Otherwise family history was negative. He had childhood diseases but no protracted illness. He is a widower, and has had a family of five children; three adults now living; one son died aet. 28 of diabetes; one daughter died aet. 2 of diphtheria.

He had been in good health up to 1905 and had always worked hard as a blacksmith and machinist up to that time. Since then he has required medical attendance; the chief complaint being inability to stand any exertion, weakness, and attacks of syncope and epileptiform seizures at irregular intervals.

In November, 1905, while visiting his son in New Jersey, he had dizzy spells, tumbled over and later, while walking on street was affected in same way and had to be assisted home and after a rest felt fairly well. In a few days the attack recurred and he was put to bed, the dizziness was followed by syncope and at intervals by epileptiform attacks in which he repeatedly threw himself out of bed.

He was taken to a hospital in Newark, N. J., and there attacks continued at irregular intervals, sometimes one attack after another, then again only at long intervals, and sometimes the epileptiform seizures were so violent that he had to be fastened into bed. The doctors at the hospital remarked about the slowness of his pulse, at that time there being only fourteen beats of the radial pulse to the minute.

After six weeks in the hospital, and very little improvement, with the reluctant consent of the doctor in charge, he was taken to Burlington, Vt. The hospital doctors said that he could not survive the trip, but as the old gentleman was unhappy among strangers and wanted to be with his daughter, the journey was undertaken and resulted happily, the patient taking some aromatic spirits of ammonia in water and two small doses of whiskey during the trip.

After his arrival in Vermont, for several weeks at a time he would appear to be all right, but on getting tired or after some exertion, and at times without apparent cause, he would complain of weakness and a queer sense of pressure in upper abdomen and chest extending into his throat, then would partially, often completely, lose consciousness and there would be twitching of mouth and extremities, sometimes violent. There was no frothing at the lips nor biting of tongue nor involuntarily micturition or defecation.

At this time his pulse was generally 26 beats per minute and rather strong and regular, but just before or during an attack it would increase to 28 or 30. Holding his radial pulse under my fingers and noting the regular 26 beats, suddenly the patient would roll his eyes and groan and have a mild epileptiform seizure and pulse would seem to stop entirely. No radial pulse could be noted for 10 or 12 seconds, and meanwhile with stethoscope the usual heart-sounds could not be heard, but only a faint distant rumble. Also during an attack there were three, sometimes more, visible pulsations of the internal jugular veins, more noticeable on the left side just above the clavicle, while no arterial pulsation could be determined. After three or four jugular

pulsations heart-sounds returned and could be heard distinctly with stethoscope. Recovery from one of these attacks, if of short duration, was usually quick and good, but when attack was prolonged or there were successive attacks without hardly any interval he was left weak and exhausted. Diagnosis. Heart-Block or Stokes-Adams Syndrome—from essential symptoms of bradycardia, vertigo, epileptiform convulsions and internal jugular pulsations.

Differential diagnosis. From epilepsy — no epileptic cry, no biting of tongue, no involuntary evacuation of bladder or rectum. Pulse-rate and cardio-vascular signs of heart-block help to distinguish.

Functional disorders of heart can be differentiated by auscultation. Comparison of measurements of venous and arterial tracings with sphygmograph serve to show extra systoles.

Prognosis. Grave. Heart-block may become complete at any time. Cases of recovery have been reported, but are generally improbable.

Treatment. In this case there was no history of any specific disease but patient was put on potassium iodide at intervals. Strychnine was given four times daily, 1-60 gr. at first but later dose was increased to 1-30 gr. 2 i. d. Exercise and diet were very much limited and general health attended to. Much care had to be given to keep bowels free and regular for just as soon as he became at all constipated attacks recurred. All meat except fat was forbidden, and with much benefit to patient. Also tea and coffee were left out and he was not allowed to eat a great deal of anything at a time. Under above regulations the intervals between attacks became longer and the man felt better. Any deviation either by over-exertion, eating meat, or becoming constipated seemed to bring on an attack. During an attack morphine sulphate $\frac{1}{8}$ gr. seemed to prevent recurrences of the epileptiform seizures. If given at the very first, nitroglycerine gr. 1-100 often served to abort an attack. Whiskey, oz. $\frac{1}{2}$ daily, was of benefit in this case and under it attacks were much less frequent.

ORGANIZATION OF NATIONAL AND LOCAL FORCES IN THE CAMPAIGN AGAINST CANCER.

BY CURTIS E. LAKEMAN, EXECUTIVE SECRETARY AMERICAN SOCIETY
FOR THE CONTROL OF CANCER.

The American Society for the Control of Cancer has recently urged that every state medical society take an active part in arranging meetings and in spreading among all members of the profession the

latest knowledge of malignant disease. At the suggestion of the Cancer Committee of the Pennsylvania State Medical Society, many journals will devote their July issues to this subject. It has been pointed out that the American Society for the Control of Cancer might take this timely opportunity to state its view of the relations between the various bodies which are concerned in this campaign. The suggestion is welcome. If indeed a clear understanding can be reached as to the most effective division of functions and duties among the various organizations, national, state and local, interested in this subject, a long step will have been taken toward the conquest of malignant disease, in so far as that ideal can be approached by the practical application of present knowledge.

THE NATIONAL SOCIETY.

The American Society for the Control of Cancer sets up no claim of priority or originality in preaching to the public the necessity of early recognition and treatment of this disease. The organization was effected under the inspiration of numerous similar movements in this country and in Europe. From the first it has been inspired only by a sincere ambition to coördinate all existing forces into a single irresistible nation-wide effort to reduce the cancer death rate by imparting the necessary knowledge and inspiring the will to believe and act upon it. Those who direct the policy of the Society have no illusions that they are "called" above others to this task. They firmly believe that all sincere workers should unite in a single well considered national movement. If the present Society fails to meet the requirements of such a movement it must give place to some agency that will do so, leading the campaign against malignant disease with as conspicuous ability and success as the National Association for the Study and Prevention of Tuberculosis has directed the war on consumption.

RELATION TO THE PROFESSIONAL SOCIETIES.

While the Cancer Society found its first impulse in the work of a committee of the American Gynecological Society, the movement was broadened at its very inception by the appointment of organizing delegates from the American Surgical Association, the American Dermatological Association, the Association of Pathologists and Bacteriologists and practically all the similar special organizations which met in Washington in May, 1913, as the Congress of American Physicians and Surgeons. Definitely launched in New York on May 22nd, 1913, the movement received within a few months the official endorsement of the American Medical Association, the Clinical Congress of Surgeons, the Western and the Southern Surgical and Gynecological Societies and a number of sectional and state organizations. All these

professional bodies have endorsed the design of the National Cancer Society as expressed in its Constitution:

"To disseminate knowledge concerning the symptoms, diagnosis, treatment and prevention of cancer, to investigate the conditions under which cancer is found and to compile statistics in regard thereto."

RELATION TO CANCER RESEARCH.

It will be seen that this purpose comprises not only the conduct of an educational campaign but the gathering of information in regard to this disease. In what relation, then, does the Society stand to the various American Cancer research institutions and workers? The answer is that the Society does not contemplate the prosecution or support of biological research, already so ably pursued under the auspices of our leading universities. With these workers in the field of pure science mutually helpful relations have developed. Indeed a notable collective expression of their attitude is regarded as a very corner stone of the educational movement. A few years ago the eminent laboratory students placed on record in the transactions of their official organization, the American Association for Cancer Research, their conviction that pending the discovery of the ultimate nature and cause of cancer, a far more effective dissemination and utilization of the vast store of present knowledge of the disease is urgently called for. Formed to carry out this very object, the "Control" Society depends upon the constant support and coöperation of the institutions represented in the "Research" Society. Many of the foremost American students of cancer are prominent in the membership of both organizations. Machinery is thus provided for the wider dissemination among the profession and the people of the essence of the newest knowledge of malignant disease, fresh from its laboratory sources.

RELATION TO STATISTICAL INVESTIGATIONS.

The Society does, however, contemplate original work in the collection and collation of statistical data, and will expand this feature of its program as fast as its resources permit. The statistics of cancer mortality need to be improved both as regards their collection and their publication. The merest suggestion by the Society to the U. S. Census Bureau has been sufficient to initiate a notable advance in this respect. With the greatest possible interest and zeal, Mr. Harris the late Director of the Census, and his successor, Mr. Rogers, have undertaken the preparation of a special report on the cancer mortality of the U. S. Registration Area in 1914. The number of deaths will be stated in full detail under some thirty titles of organs and parts of the body affected, instead of, as hitherto, merely under the six general groups

of the International List. The Imperial Cancer Research Fund has long urged that it is only on the basis of such detailed data for the various organs that a true conclusion can be reached as to whether or not cancer is increasing. For the first time in the United States the data will now be at hand, as it is in England and Wales through the reports of the Registrar-General, for the prosecution of such inquiries.

The Census Bureau will also for the first time in this study make a distinction between returns based on certain and on doubtful diagnosis. To secure the additional information needed for this distinction the Bureau is sending tens of thousands of letters to physicians who have certified deaths from cancer asking whether the diagnosis was based on clinical findings alone or was established by surgical intervention, microscopical examination, or autopsy.

All this, it will be realized is a large amount of work for even a government bureau to undertake. Much of it should be done in the first place by the registration offices and the boards of health of the several states, where the original certificates of death are filed. It will be the duty of the American Society for the Control of Cancer to urge upon the various state officials the need of undertaking this work in order to insure the permanence of the advance in the statistical study of cancer which has been inaugurated by the Census Bureau.

But the Society is also interested in special statistical studies of the geographical, racial and occupational distribution of cancer, and above all in collating, upon a uniform plan, the records of surgical treatment of the disease in the leading hospitals. It is important that an authoritative answer be available for all who ask just what percentage of success is to be expected in the treatment of each phase and each stage of this multiform disease. All such studies the Society regards as fulfilling its fundamental purpose and in pursuing them it is everywhere receiving the most cordial encouragement and assistance from statistical offices and from the best hospitals and institutions.

RELATION TO EDUCATIONAL AGENCIES.

The important and clearly established lessons derived from such studies of the sources of information must be given to the public. The Society has undertaken to do this directly, through its publications, its regular articles for the newspapers and its lectures. But in the large view it can best secure this object by enlisting the coöperation of all appropriate existing agencies which conduct educational work. Foremost among these are the state and local departments of health, especially those which are devoting an increasing share of their energies to the spreading of the gospel of health by bulletins, exhibits and

lectures. In the same category must be included the committees on public instruction which in many states are conducting admirable campaigns of health education under the auspices of the state medical societies. Toward all these agencies the Society stands in the relation of the "producing" to the "distributing" end of a manufacturing business. With its wide outlook over the national field it is in a strong position to provide statistical material, to receive and pass on new knowledge, new experiences, new methods which have been found valuable in one field and should be used in others. In another view the Society may take the position of "middleman" between the research workers and statistical students producing new facts about cancer at the sources of knowledge on the one hand, and on the other the many agencies, general and local, which will bring the practical bearings of this knowledge, new and old, directly home to the people. In general, then, one of the most useful functions of the Society is to act as a bureau of information and clearing house which is at the service of all workers and institutions interested in the study and control of cancer.

RELATION TO STATE COMMITTEES.

The relation of the national Society to similar movements within the various states should be clear from what has been said. In no case will the Society seek to set up local agencies to parallel work already adequately organized under the auspices of state medical societies and boards of health. Provision is made for local committees to be organized under the supervision of the resident directors of the National Society wherever no state or local agency is in a position to undertake the work. Such groups will not be formed, however, except under full agreement with present state agencies. Where, as in Pennsylvania, under Dr. Wainwright, and similarly under the auspices of state medical societies in Maine, Wisconsin, Kansas, Colorado, Louisiana, Texas and many other states, active local committees are at work, every effort will be made to assist these groups in the manner already outlined and so far as the constitutional limits of size permit to secure from them representative delegates to the governing council of the National Society. At least one director from each state will eventually be chosen to act as a local correspondent who will inspire and stimulate work in his own state while at the same time assisting in formulating the general policies of the National Society.

RELATION TO OTHER GENERAL COMMITTEES.

It is an earnest of the good feeling and harmony with which the cancer campaign is evolving toward a single coherent national movement to consider the high degree of integration with other national agencies

which has already been attained. Some of these had begun effective work long before the present Society was established. Aside from such admirable local campaigns as that of the Pennsylvania Commission and the work inspired by Dr. C. C. Carstens in Michigan, the Clinical Congress of Surgeons of North America had in the field an active Committee on Cancer under the chairmanship of Dr. Thomas S. Cullen of Baltimore, the other members being Dr. Simpson of Pittsburgh and Dr. Howard C. Taylor of New York. This Committee, as is well known caused the publication of widely read and influential popular articles by Samuel Hopkins Adams. It is instanced merely as indicative of the get-together spirit that animates the National Society that all three of these men naturally took their places as members of the Executive Council of the new association. Subsequently the American Medical Association appointed a Cancer Committee representing its Council on Health and Public Instruction, and again to avoid duplication of effort the same men were made members of that Committee. Dr. Frederick R. Green, the capable executive of this Council of the American Medical Association, has been from the first a director of the Cancer Society, and has given invaluable advice and coöperation in its publicity campaign, printing every week in the press bulletin of the A. M. A. a popular article on cancer prepared by the Society, which thereby reaches 3000 or more editors in all parts of the country.

A similar identity of committees has been effected in local fields, especially in Minnesota, and is typical of the desire to carry on everywhere a well-coördinated national campaign which shall embrace representation from all the principal local agencies and shall thus move forward with absolute harmony and unity of purpose to the accomplishment of its difficult but glorious ideal—the progressive reduction of the mortality from this historic scourge of mankind.

JOURNAL OF MAINE MEDICAL ASSOCIATION

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Editorial Comment.

The Sixty-Third Annual Meeting of the Maine Medical Association.

The sixty-third session of the State Association proved to be one of the greatest in the history of the organization and the credit was largely due to our genial hosts, the Ricker Brothers, who made possible such a gathering of medical men.

The members and their wives were conveyed from the train to the hotel, where they were allowed accommodation for two days, as guests of these generous-hearted men, and again conveyed back to the train.

The registration of this session was close to 350 members; altogether, there were registered at the hotel, about 650.

The membership of the Association has gone well over the 700 limit, and is still climbing.

We are glad to state that this session marks the beginning of a business administration, which will keep the Association's expenses within its income. This, with other changes, will mark the session as one of the greatest that the Association has ever had.

On the closing day, one could hear nothing but the praise of our hosts, and, from those familiar with the working of the House of Delegates, the constant expression that the entire session had been a great success, in every possible way.

Malpractice Insurance.

It has been the effort of the Management of THE JOURNAL to secure advertisements of a diversified nature, and such as we can recommend to the members of the Association, as absolutely reliable, and we are fortunate in this instance, in securing one which can offer to the medical profession an insurance against suits of malpractice, of rather unusual merit.

The writer has looked into this question to some extent, and is carrying one of these policies, also he knows the members of the firm, and has no hesitation in vouching for their integrity as business men.

Suits of malpractice are becoming very frequent throughout the West, and much more frequent in the East, and it is hardly safe for a medical man to be without some protection.

Bowdoin Medical School.

It is a source of gratification to the graduates of the Medical School of Maine to learn that after a year's deliberation, the Board of Trustees and Overseers of Bowdoin College have changed the name of the Medical Department from the Medical School of Maine to Bowdoin Medical School.

We believe this change is for the best interests of the school, as well as the college, and will be greatly appreciated by the Alumni of the Medical Department.

County News and Notes.

FRANKLIN.

The Franklin County Medical Society held its regular meeting at Farmington, May 28th. 38 members, their wives and invited guests, sat down to one of Mrs. Sylvester's justly celebrated dinners at "Hill Crest" and did full justice to the occasion.

After dinner Dr. C. A. Bonner of Skinner, Me., was elected to membership. Dr. H. L. Bartlett of Norway made a few remarks on matters concerning the State Association.

Dr. B. F. Bradbury of Norway gave us a very interesting talk on his experiences as Director of the American Red Cross Units at Kosel, Germany.

G. L. PRATT, *County Editor.*

HANCOCK.

A regular meeting of the Hancock County Medical Society was held at the residence of Dr. R. G. Higgins, Bar Harbor, Wednesday, May 19th.

Rev. A. J. Torsleff of Bangor gave a short address in reference to establishing a district tuberculosis nurse in Bar Harbor and vicinity.

"Heart Block or Stokes-Adams Syndrome with Report of a Case" was the subject of an interesting paper by Dr. I. B. Gage of Atlantic.

Dr. C. C. Morrison of Bar Harbor presented a paper on "Blood Pressure," which was very instructive as it embraced the latest deductions from this form of examination.

After the literary exercises, Dr. Higgins, the host, led the way to the dining hall, where all enjoyed a luscious repast.

Those present were: Drs. Patten, Wakefield, C. C. Morrison, E. J. Morrison, Higgins, Hagerthy and Phillips of Bar Harbor; Webster of Castine; Freeman of Surrey; Gage of Atlantic; Neal and Phillips of Southwest Harbor.

G. A. NEAL, *Secretary*.

YORK.

The eighty-first quarterly meeting of the York County Medical Society was held at the Narragansett House, Kennebunk Beach, Tuesday, June 29, 1915.

It was the annual summer outing and Ladies' Day, and there was an unusually large attendance, on account of the pleasant weather, the attractive location, and the importance of the business meeting.

Dr. J. M. O'Connor of Biddeford presided. One application for membership was presented and referred to the Board of Censors.

Dr. E. E. Holt, Portland, President of the Maine Medical Association, addressed the members in a felicitous manner. Mr. F. L. Bulfinch of Manchester, N. H., representing the Aetna Insurance Company of Hartford, Connecticut, presented the subject of physicians' and surgeons' liability insurance under the group policy plan of coöperative protection. It was voted, without dissent, to favor the acceptance of this proposition, and about 25% of our membership of 70 had signed for this form of insurance before the meeting adjourned.

Charges were presented formally against three of the members of this Society, who are now engaged in contract practice for the Eagles' Society, and the Loyal Order of Moose. Action by this Society will be taken at the October meeting.

A shore dinner was enjoyed from 1 to 2 o'clock.

After dinner, Rev. A. J. Torsleff of Bangor, Secretary of the Maine Anti-Tuberculosis Association, gave an instructive half hour's address relative to the purposes of that organization. A rising vote of thanks was extended the speaker.

A pleasing musical program, impromptu in its nature, was rendered by the members and their guests.

There were present: Dr. and Mrs. E. E. Holt, Miss Dorothy K. Holt, Miss Arabella Dyer, Portland; Miss Bess M. Sobernheimer, Philadelphia; Dr. and Mrs. J. L. M. Willis, Miss Myrtie Ham, Eliot; Dr. and Mrs. H. L. Prescott, Dr. Guy Hinsdale, Kennebunkport; Dr. and Mrs. F. W. Smith, Dr. and Mrs. E. C. Cook, York Village; Dr.

and Mrs. S. B. Marshall, Alfred; Dr. and Mrs. B. F. Wentworth, Scarborough; Dr. and Mrs. H. A. Owen, Bar Mills; Dr. and Mrs. W. H. Baker, West Buxton; Dr. and Mrs. R. S. Gove, Dr. and Mrs. C. W. Blagden, Dr. and Mrs. A. C. Lamouroux, Dr. P. S. Sullivan, Sanford; Dr. and Mrs. F. C. Lord, Dr. F. M. Ross, Kennebunk; Dr. and Mrs. L. L. Powell, Dr. and Mrs. R. L. Maybury, Dr. and Mrs. C. E. Thompson, Dr. L. E. Willard, Saco; Dr. and Mrs. E. D. O'Neill, Dr. and Mrs. C. F. Kendall, Dr. J. M. O'Connor, Dr. O. E. Boivin, Biddeford; Dr. C. E. Cook, South Berwick, Dr. and Mrs. L. H. Brown, Dr. J. O. McCorison, J. O. McCorison, Jr., North Berwick; Professor and Mrs. R. D. Purington, Lewiston; Rev. A. J. Torsleff, Bangor; Misses Mollie Moore, Nan M. Reilly, Laurette M. Minard, Biddeford; F. L. Bulfinch, Manchester, N. H.; Mrs. W. S. Dolley, Dr. A. L. Jones, Old Orchard. Total 60.

Abstracts from Current Literature.

Infection, Immunity and Specific Therapy.

By Dr. John A. Kolmer, Instructor of Experimental Pathology, University of Pennsylvania; Professor of Pathology and Bacteriology, Philadelphia Polyclinic, Pathologist Department of Dermatologic Research; Pathologist, Philadelphia Home for Contagious Diseases. W. B. Saunders, Publisher.

Introduction and Preface:—Laboratory Aspect of Infection Immunity and Specific Therapy. Pneumococcus Infections. Pneumonia. Infection. Two circumstances essential for infection:

1. Presence of pneumococci; 2. Lessening of body resistance. Pneumococci are usual and habitual harmless parasites of the upper air passages, but it is probable that those causing infection differ inherently in adaptation and virulence for man. Lessening of resistance is both general and local.

Pneumonia is regarded as a general infection with localized lung lesion. Pneumococci are found in the blood of most severe cases. Symptoms are due to intoxication. Secondarily, the exudate in the lungs brings about cardiac, respiratory and neural symptoms. There are: Chlorin retention, tendency to methemoglobin formation, deficiency of tissue oxydoses and presence of endotoxins within the pneumococci.

Immunity does not usually follow an attack of pneumonia, indeed the patient is apparently hypersusceptible; nevertheless, it has been found that the antibodies formed are largely specific for the particular organism causing an infection. Reinfection, therefore, is possible with

an organism belonging to another group (of which there are several) and liability to reinfection may be increased because of lowered local and general resistance due to a previous attack.

(Groups of pneumococci: Group I, 47% of cases; Group II, 18%; Group III, 13%; Group IV, 22%.)

Indications of specific serum therapy are, mainly, twofold; 1. To destroy pneumococci. 2. To neutralize toxins. Satisfactory serum must contain bacteriolysins, bacteriotropins and antitoxins in sufficient concentration to yield standard protection (= .01 c. c. against 10-100 times least certainly fatal dose in mice.)

Administration of antipneumococcus serum. Strain is first determined by agglutination test. Intravenous administration is best. 50-100 c. c., with equal amount of salt solution, are injected not oftener than every twelve hours. Condition of the patient is the guide.

Results. Of 23 patients at the Rockefeller Institute, all seriously ill, 15 cases due to pneumococcus. Type I, with the exception of one case, recovered. Mortality 6.6%. Among 31 patients having a like infection, not receiving serum treatment, 24% succumbed. Of 8 cases infected with type II, receiving the corresponding serum, 6 recovered; mortality 25%; but, one of the fatal cases declined further treatment; 61% of cases in a series of 13 not receiving serum did not survive.

In 10 cases pneumococci were isolated from the blood before the treatment was begun. In all, the blood became sterile after the first treatment. Crises were not brought about by one injection in any case but in all, except fatal cases, there was lowering of temperature and shortening of disease.

Vaccinal Therapy. Autogenous vaccines may be of service in the treatment of delayed resolution. Cultures are secured by puncturing the lungs. Usually several micro-organisms are found and a mixed vaccine may be given.

Chemotherapy. Ethyl hydrocuprein was capable of arresting infection in 50% of animals when given six hours after inoculation.

Pneumococcal Meningitis. Infection usually secondary to pneumonia; or infection may occur directly from sinuses, mastoid or internal ear; diagnosis by lumbar puncture; cerebral meningitis more refractory than spinal.

Serum Therapy. In monkeys, experimental pneumococcal meningitis, treated with homologous serum, fatal termination is delayed but not prevented.

Homologous antipneumococcus serum (4 c. c.) sodium oleate (2% aqueous solution [Merck's]) and boric acid (5% aqueous solution) administered intraspinally, early, has given excellent results in experimental pneumococcus meningitis in monkeys. This therapy, applied topically in pneumococcal infection, as sinusitis, has been suggested.

Cerebro-spinal Meningitis. (Meningococcal Meningitis.) Prophylactic inoculation with vaccine during an epidemic. Apparently affords a high degree of protection as evidenced by demonstration of opsonin and agglutinin content of blood in persons who have received the vaccine.

Nature of infection. At first bacteriemia, portal of entry, upper air passages, later localization in meninges, organism probably causes primary naso-pharyngitis.

Serum Therapy. Serum contains not only antitoxins but also bacteriotropins and bacteriocidins which act locally, must therefore be applied locally i. e. intraspinally. It is good practice, also, on account of bacteriemia and localization in joints, lungs or on heart valves to give intravenously also.

Dosage	Dose of Serum	C. S. fluid withdrawn
1 - 5 years	3 - 12 c. c.	12 c. c.
5 - 10 years	5 - 15 c. c.	15 c. c.
10 - 15 years	10 - 20 c. c.	20 c. c.
15 - 20 years	15 - 25 c. c.	35 c. c.
20+ years	20 - 35 c. c.	45 c. c.

The general rule is to give serum every day for four days; then on alternate days until symptoms subside.

Results. Upon course of disease: foreshortens. Upon complications: lessens these. Upon mortality: 30% with treatment. 70-90% without treatment.

E. H. KING.

Fever — Its Thermotaxis and Metabolism.

By Isaac Ott, A. M., M. D. Paul B. Hoeber, New York, Publisher.

The series of three lectures on fever, published by Ott, are based on a very large amount of experimental and clinical work. Although somewhat technical, the lectures bring out many practical points for consideration. The phenomenon of heat may be studied by the use of the thermometer, the calorimeter and by the determination of O absorbed and CO₂ eliminated.

Heat regulation or thermotaxis depends upon four nervous centers: two basal thermogenic centers, the corpus striatum and the tuber cinereum, and two inhibitory centers, the cruciate and sylvian. There are minor thermogenic centers in cord, also a thermolytic, polypnoëic center in tuber cinereum. The vaso-motor and sudorific centers also affect thermolysis.

Adrenalin is a stimulant for the thermogenic centers while morphine tends to prevent excessive stimulation of brain cells.

Temperature is the result of the relation of heat production to heat dissipation and not simply a measure of the conversion of latent into kinetic energy. Thus different toxins cause rise in temperature by stimulating heat production or by diminishing heat dissipation.

In regard to carbohydrate metabolism, it is interesting to note that there is increase in sugar in peripheral blood when the external temperature is low and also when the temperature of the body is elevated.

In fever there is increased proteid metabolism but no increased fat metabolism except such as may result from inanition in the individual.

The evidence that fever, up to a certain degree, is beneficial rather than noxious is supported by experimental investigation.

C. M. ROBINSON.

(Therapeutic Gazette, March, 1915.)

Tubercular Infection complicating Pregnancy and the Puerperal state, with consideration of its treatment.

Dr. Edward P. Davis, Philadelphia.

Relationship between Tuberculosis and Pregnancy.

Dr. Elmer H. Funk, Philadelphia.

These two papers, dealing with the same subject, one written by one of the foremost obstetricians in the country, and the other by a man on the medical faculty of Jefferson, give both viewpoints of this difficult problem.

Statistics show percentages from 25 to 63 of women, who dated the onset of their tubercular infection at a previous pregnancy; from 50 to 70, in whom pregnancy aggravated the disease; and that 33% of pregnant tuberculous women die the first year after their pregnancy.

The presence of tuberculosis does not, however, at all diminish the likelihood of the woman becoming pregnant.

Pregnancy makes an enormous drain on the resources of a woman, and gives any latent focus an opportunity of breaking out actively. Even when the patient during pregnancy seems in better health than formerly, there is a recrudescence of the disease following parturition. Exceptions are cited, but are unusual.

The question whether or not to interrupt pregnancy is the practical point. It is absolute that a woman with previous tuberculous infection becomes pregnant at a very much greater risk than others, and she should be told this. If the patient is between 17 and 25, and in such circumstances that great care, under accurate supervision, will be taken she may be allowed to continue. In very exceptional cases, she may be allowed to nurse the baby.

If a woman with an active tuberculous focus becomes pregnant, the uterus should be emptied, and the patient sterilized, and if possible without the use of inhalation anesthesia.

Medical treatment is of no avail.

As to the effect on the offspring, it is probable that the post-natal effect is of more consequence than the prenatal.

H. J. EVERETT.

(Surgery, Gynecology and Obstetrics, May, 1915.)

The Use of the Percy Cautery in Carcinoma Uteri with Especial Reference to Its Use as a Forerunner to the Wertheim Operation.

By Samuel Clark, New Orleans.

Since 1892, the actual cautery has been much used in the treatment of inoperable cancer of the cervix with usually a marked temporary relief of symptoms and very occasionally an apparent cure of the disease. In 1912, Percy gave the profession a much more definite plan of procedure which the writer of this paper considers will lead to a great improvement in the treatment of these cases and, especially in his hands, has enabled him to so prepare the patients that a subsequent radical operation became possible.

Percy showed as the basic principle of his method that the hot iron disseminates the heat widely from the site of insertion and raises the temperature of the surrounding tissues to a point at which cancer cells are destroyed though normal cells are unaffected. It seems to be a proven fact that cancer cells are peculiarly susceptible to heat, being killed if raised to a temperature of 113 degrees, whereas normal cells are not changed until the temperature reaches 130 degrees to 140 degrees. It has been shown by Percy and the writer that the electric cautery is the only instrument to use in these cases because the old copper irons and soldering irons produced charring and singeing of the tissue which prevented the radiation of the heat. It is not advisable to do a preliminary curettage but, in cases of extensive growth, the cutting cautery may be used. The writer also believes that in the earliest type of cancer of the cervix, where the patient is still a good risk, the heat should be used as a preliminary step.

The technique, is as follows: First the abdomen is opened and the fundus seized firmly with the hand. Then the cautery is introduced well within the cervix and the heat raised to such a point that the hand on the fundus can just barely tolerate it. This heat is maintained for 20 or 30 minutes. Then, if the patient is in good condition, a radical operation is done at the same sitting but, in advanced cases, the radical operation is deferred until the patient can be brought up into better general condition.

As the work in these cases is still only two years old, this can be but a preliminary report but the temporary results are so much better than under former methods of treatment that the writer believes that in Percy's elaborate heat method a definite advance has been made in the treatment of cervical carcinoma.

P. P. THOMPSON.

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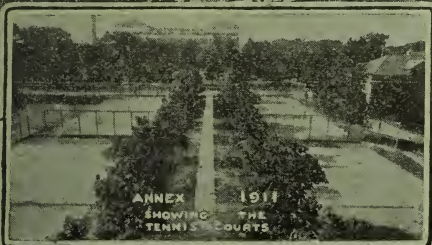
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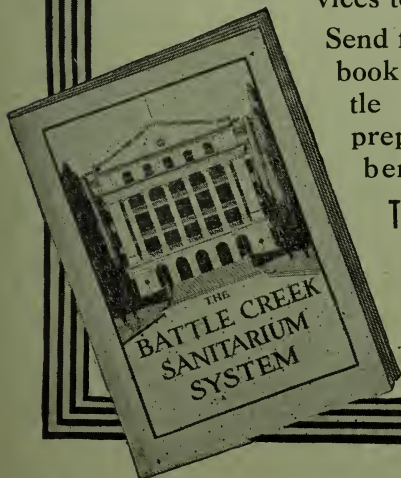
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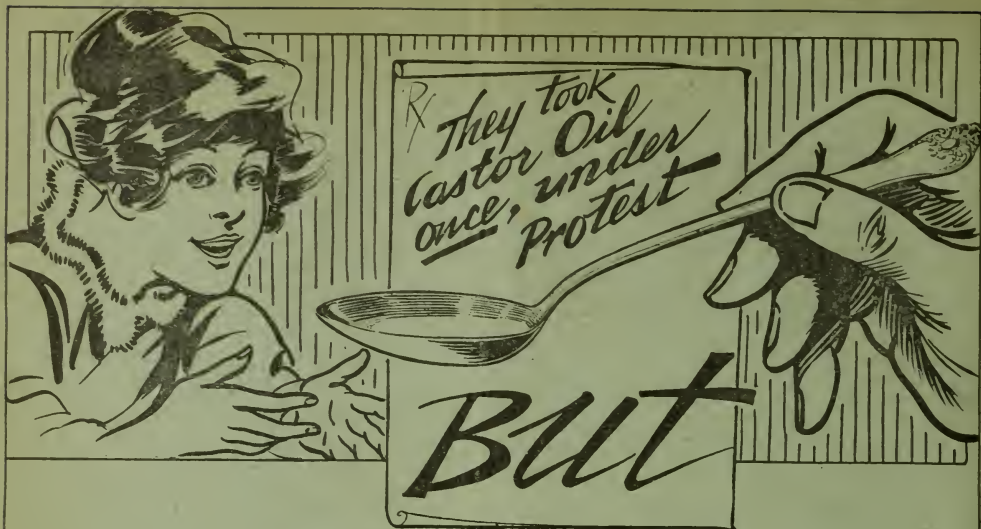


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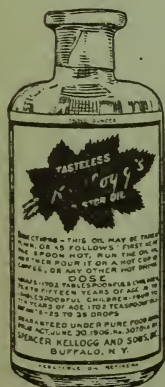
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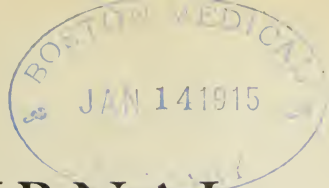
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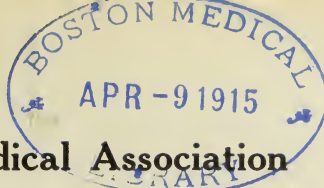
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The Next Meeting will be held at Poland Springs, June 9 and 10, 1915.

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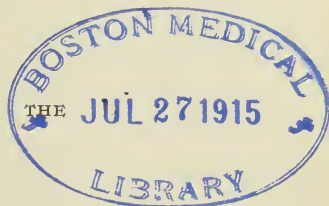
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The Official Organ of the State and County Medical Societies.

VOL. V, No. 11

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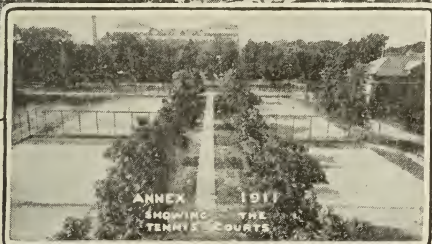
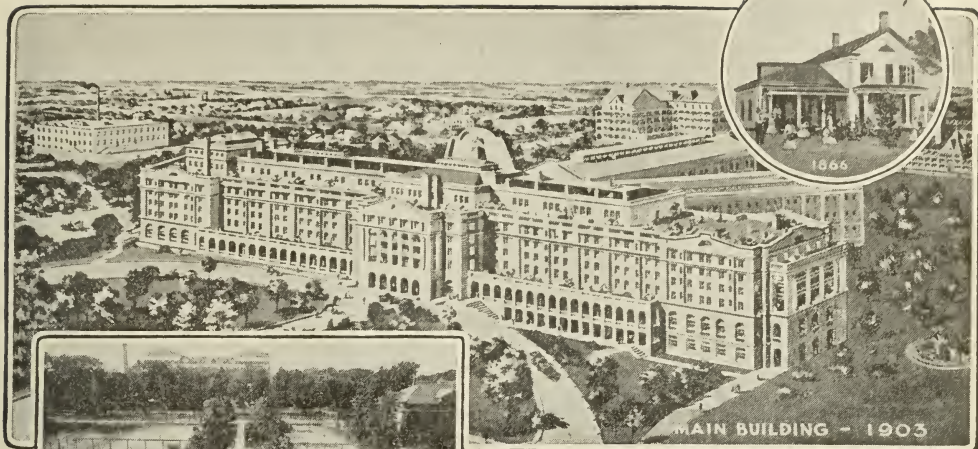
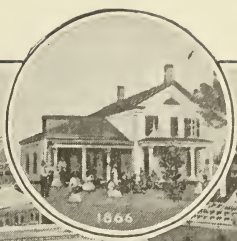
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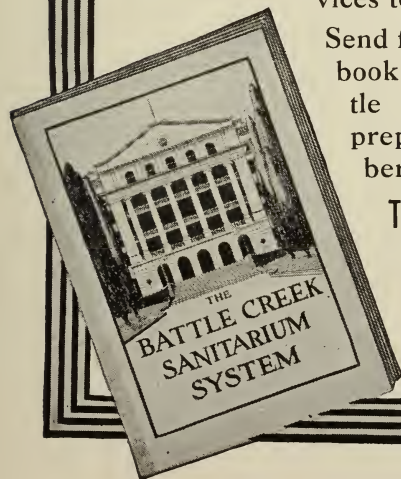
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